



October 22, 2001

MEMORANDUM

TO: Bill Rogers 
Title V Permit Coordinator
Air Quality Division

FROM: Darrin Mehr, Air Quality Engineer, Associate 
Process Engineering, State Office of Technical Services

SUBJECT: **TECHNICAL MEMORANDUM FOR TIER I OPERATING PERMIT
ADMINISTRATIVE AMENDMENT**
T1-010917, Tesoro West Coast Company, Boise
(Administrative Amendment to Operating Permit #001-00093, originally issued to Amoco Oil
on May 23, 2001)

| | |
|----------------------------------------------------------------|-------------------------------------------------------------------------------|
| Permittee: | Tesoro West Coast Company |
| Permit Number: | 001-00093 |
| Air Quality Control Region: | 64 |
| AIRS Facility Classification: | A |
| Standard Industrial Classification: | 5171 |
| Zone: | 11 |
| UTM Coordinates: | 567.207 km, 4833.15 km |
| Facility's Permitting Contact Mailing Address | 3450 South 344 th Way, Suite 100, Auburn, Washington 98001-5931 |
| Facility Mailing Address: | 321 N. Curtis Road, Boise, Idaho 83706 |
| County: | Ada |
| Facility Contact Name and Title: | Jeffrey M. Baker, P.E., Supervisor, Environmental Compliance & Remediation |
| Contact Name Phone Number: | (253) 896-8700 |
| Responsible Official Name and Title: | Charles L. Magee, Vice President, General Counsel & Assistant Secretary |
| Exact plant Location: | 321 N. Curtis Road, Boise, Idaho |
| General Nature of Business & Kinds of Products: | Bulk Gasoline and Distillate Fuel Oil Distribution |

TABLE OF CONTENTS

| | | |
|-----|-----------------------------------|---|
| 1. | PURPOSE..... | 1 |
| 2. | SUMMARY OF EVENTS | 1 |
| 3. | BASIS OF THE ANALYSIS..... | 1 |
| 4. | FACILITY DESCRIPTION..... | 1 |
| 4.1 | General Process Description | 1 |
| 4.2 | Facility Classification..... | 2 |
| 4.3 | Area Classification | 2 |
| 4.4 | Permitting History..... | 2 |
| 5. | REGULATORY ANALYSIS..... | 2 |
| 6. | AIRS DATABASE..... | 4 |
| 7. | REGISTRATION FEES..... | 4 |
| 8. | RECOMMENDATION | 4 |

ATTACHMENTS

ATTACHMENT A - Facility-wide Potential to Emit Estimation of VOCs

ATTACHMENT B - Technical Memorandum for Issuance of the May 23, 2001, Tier I OP to Amoco Oil Company

ATTACHMENT C - Copies of:

- 1) Amoco Oil Company's Initial Area Source Status Notification to EPA Region X for the Bulk Gasoline Distribution MACT
- 2) Amoco Oil Company's Annual MACT Report under 40 CFR 63.428(i)(3), dated June 2, 2000

LIST OF ACRONYMS

| | |
|------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| ACFM | Actual Cubic Feet Per Minute |
| AFS | AIRS Facility Subsystem |
| AIRS | Aerometric Information Retrieval System |
| AQCR | Air Quality Control Region |
| CFR | Code of Federal Regulations |
| CO | Carbon Monoxide |
| DEQ | Idaho Department of Environmental Quality |
| dscf | Dry Standard Cubic Feet |
| EF | Emission Factor |
| EPA | United States Environmental Protection Agency |
| gpm | Gallons Per Minute |
| gr | Grain (1 lb = 7,000 grains) |
| HAPs | Hazardous Air Pollutants |
| IDAPA | A numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act |
| km | Kilometer |
| lb/hr | Pound Per Hour |
| MMBtu | Million British Thermal Units |
| NESHAP | Nation Emission Standards for Hazardous Air Pollutants |
| NO ₂ | Nitrogen Dioxide |
| NO _x | Nitrogen Oxides |
| NSPS | New Source Performance Standards |
| OP | Operating Permit |
| O ₃ | Ozone |
| PM | Particulate Matter |
| PM ₁₀ | Particulate Matter with an Aerodynamic Diameter of 10 Micrometers or Less |
| ppm | Parts Per Million |
| PSD | Prevention of Significant Deterioration |
| PTC | Permit To Construct |
| PTE | Potential To Emit |
| SCC | Source Classification Code |
| scf | Standard Cubic Feet |
| SO ₂ | Sulfur Dioxide |
| TSP | Total Suspended Particulates |
| T/yr | Tons Per Year |
| µm | Micrometers |
| VE | Visible Emissions |
| VOC | Volatile Organic Compound |

PUBLIC COMMENT PROCESS

In accordance with IDAPA 58.1.01.381.02.c, no public comment, affected states review, or United States Environmental Protection Agency (EPA) Region 10 review periods are required for this administrative amendment. EPA Region 10 will be sent a copy of the revised permit.

1. PURPOSE

The purpose of this memorandum is to set out the legal and factual basis for this amended Tier I Operating Permit (OP) in accordance with IDAPA 58.01.01.381, *Rules for the Control of Air Pollution in Idaho (Rules)*.

The Idaho Department of Environmental Quality (DEQ) staff have reviewed the information provided by Tesoro West Coast Company (Tesoro) and the original permittee, Amoco Oil Company, regarding the operation of the Tesoro's bulk gasoline and distillate fuel distribution facility located in Boise, Idaho. This information was submitted based on the requirements to gain a Tier I OP in accordance with IDAPA 58.01.01.300 of the *Rules*.

2. SUMMARY OF EVENTS

Tier I OP #001-00093 was issued to the Amoco Oil Company on May 23, 2001.

On August 27, 2001, DEQ received a submittal from Tesoro dated August 22, 2001.

DEQ received submittals from Tesoro on September 4, 2001, and September 19, 2001 (by facsimile), which were dated August 30, 2001, and September 13, 2001, respectively.

On August 31, 2001, DEQ received a submittal dated August 29, 2001, from Amoco, confirming that the change in ownership, operational control, and responsibility would be transferred to Tesoro, effective September 6, 2001.

3. BASIS OF THE ANALYSIS

The following documents were relied upon in preparing this memorandum and the Tier I OP:

- Tier I OP #001-00093, issued May 23, 2001, to the Amoco Oil Company, and the associated technical memorandum.
- Change in Ownership/Tier I OP permitting amendment request letters:
 - 1) Letter dated August 22, 2001, to Mr. Bill Rogers, DEQ, from Charles L. Magee, Tesoro
 - 2) Letter dated August August 30, 2001, to Mr. Bill Rogers, DEQ, from Jeffrey M. Baker, P.E., Tesoro
 - 3) Letter dated August 29, 2001, to Ms. Kate Kelly, DEQ, from Jeff J. Carter, British Petroleum (BP) Amoco Oil.
- Tier I OP application information submitted by Amoco Oil Company.
- Compilation of Air Pollutant Emission Factors, AP-42, Fifth Edition, January 1995, Office of Air Quality Planning and Standards, United States Environmental Protection Agency.
- Guidance developed by EPA and DEQ.
- Title V permits issued by other jurisdictions.
- Documents and procedures developed in the Title V Pilot Operating Permit Program.

4. FACILITY DESCRIPTION

4.1 GENERAL PROCESS DESCRIPTION

The facility is a petroleum product storage and distribution facility. Petroleum products are received through the Chevron supply pipeline originating in Salt Lake City, Utah. Petroleum products consisting of various grades of gasoline and distillate fuels are temporarily stored in tanks

prior to transfer to mobile carrier tanks for transport and delivery off-site. Distillate fuels can be one of a variety of fuels - kerosene, jet fuel, naphtha, diesel, etc.

The gasoline fuel is stored in any of the tanks equipped with either an external or internal floating roof. The other distillate fuels are stored in fixed roof tanks. Chemical additives are stored in several smaller fixed roof tanks. Chemical additives may be blended with the fuel products at the loading rack as the fuel is transferred from the storage tanks to the mobile transport tanks. The transport (or carrier) tanks are filled with the petroleum products at the loading rack, which is an overhead fill design with a submerged delivery pipe. Each of the carrier tanks are hauled by semi-truck off of the facility property to transfer the fuels at various sites for immediate use.

4.2 FACILITY CLASSIFICATION

For Tier I permitting purposes, the facility is classified as a major facility in accordance with IDAPA 58.01.01.008.10, because the facility has the potential to emit (PTE) volatile organic compounds of approximately 276 tons per year (T/yr).¹ The facility is an area (or nonmajor) source of hazardous air pollutant emissions with federally enforceable limitations on potential HAPs emissions, by using the approved screening equation in 40 CFR 63.420(a)(1).

The facility is also major as defined in IDAPA 58.01.01.006.55; the facility is subject to Prevention of Significant Deterioration permitting requirements because the facility's PTE is above 250 T/yr, as applicable per IDAPA 58.01.01.200 et seq.

4.3 AREA CLASSIFICATION

The facility is located within Air Quality Control Region (AQCR) 64 and is located in Ada County, which is classified as unclassifiable for federal and state criteria pollutants of sulfur dioxide, nitrogen oxides, fluorides, ozone, and lead. The facility is located within the area which is formally designated as a "not classified" non-attainment area for the eight-hour carbon monoxide (CO) standard. The area is designated as attainment for the one-hour CO standard. The facility is located within the Northern Ada County PM₁₀ Non-attainment Area, which is formally designated as "unclassifiable". There are no Class I areas within 10 km of the facility.

4.4 PERMITTING HISTORY

Amoco Oil Company was issued Tier I OP #001-00093 on May 23, 2001.

On August 27, 2001, DEQ received a request from Tesoro to amend Tier I OP #001-00093 to reflect ownership and operational control changes from the Amoco Oil Company to Tesoro.

5. REGULATORY ANALYSIS

IDAPA 58.01.01.381.01.d - ADMINISTRATIVE PERMIT AMENDMENTS

The regulation reads:

An administrative permit amendment is a permit revision that:

¹ See Attachment A to review the emission estimate summary for this facility. The VOC emission estimates reflect the gasoline loading rack throughput that Amoco used to demonstrate area source compliance in accordance with 40 CFR 63.420 et seq. Gasoline throughput at the loading rack was limited to 121.72 million gallons per year. See Attachment C to review the Bulk Gasoline Distribution MACT submittals from Amoco to EPA Region X, including the most recent annual report containing the annual gasoline throughput used in estimating emissions of VOCs.

allows for a change in ownership or operational control of a Tier I source where the Department determines that no other change in the Tier I operating permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new permittee has been submitted to the Department.

Tesoro submitted the necessary documentation required above. Tesoro did not request any alterations to the Tier I operating permit. The Amoco Oil Company submitted a written concurrence that Tesoro would become the owner and responsible party for this facility on September 6, 2001.

IDAPA 58.01.01.381.02.c - ADMINISTRATIVE PERMIT AMENDMENT APPLICATION PROCEDURES

The citation reads:

The Department shall, within sixty (60) days of the receipt of a request for an administrative permit amendment, take final action on the request and may incorporate such changes without providing notice to the public or affected States provided that the Department designates any such administrative permit amendment as having been made pursuant to Section 381. The Department shall submit a copy of the revised permit, or an addendum, to the EPA and send the original to the permittee.

The timeline specified by IDAPA 58.01.01.381.02.c will be met. The deadline for DEQ's final action on the amendment is October 22, 2001.

IDAPA 58.01.01.381.03.a - IMPLEMENTATION PROCEDURES

The citation reads:

The permittee may implement the changes addressed in the request for an administrative permit amendment under Subsections 381.01.a. through 381.01.f. immediately upon submittal of the request for an administrative permit amendment.

The permittee submitted a request that DEQ has acted upon. Ownership, operational control, and liability will be officially transferred from Amoco to Tesoro upon issuance of this amendment. Charles L. Magee, Vice President, General Counsel and Assistant Secretary, is the Boise facility's responsible official. For practical purposes, the facility may implement the amendment request on the date it was received by DEQ. Issuance of the Tier I OP bearing Tesoro's name and responsible official formalizes this permitting action.

6. AIRS DATABASE

AIRS/AFS FACILITY-WIDE CLASSIFICATION DATA ENTRY FORM

| Air Program Description | SIP | PSD | NESHAP | NSPS | MACT | TITLE V | AREA CLASSIFICATION |
|-------------------------|-----|-----|--------|------|------|---------|------------------------------------------------------------|
| | | | | | | | A – Attainment U – Unclassifiable N – Non-attainment |
| SO ₂ | B | | | | | | U |
| NO _x | B | | | | | | U |
| CO | B | | | | | | N** |
| PM ₁₀ | B | | | | | | U |
| PT (Particulate) | B | | | | | | |
| VOC | A | A | | | | A | U |
| THAP (Total HAPs) | | | | | SM | SM | |

** SEE AREA CLASSIFICATION SECTION ABOVE.

AIRS/AFS CLASSIFICATION CODES:

- A = Actual or potential emissions of a pollutant are above the applicable major source threshold. For NESHAP only, class "A" is applied to each pollutant which is below the 10 ton-per-year (T/yr) threshold, but which contributes to a plant total in excess of 25 T/yr of all NESHAP pollutants.
- SM = Potential emissions fall below applicable major source thresholds if and only if the source complies with federally enforceable regulations or limitations.
- B = Actual and potential emissions below all applicable major source thresholds.
- C = Class is unknown.
- ND = Major source thresholds are not defined (e.g., radionuclides).

7. REGISTRATION FEES

Amoco Oil Company submitted the necessary registration fee payments. The 2001 fee payment was received on September 7, 2001.

The facility is subject to registration fee requirements as applicable under IDAPA 58.01.01.525. Tesoro is recognized as the responsible party for submittal of registration and payment of registration fees.

8. RECOMMENDATION

Based on the Tier I application and review of the federal regulations and state rules, staff recommends that DEQ issue an amended Tier I OP to Tesoro West Coast Company for its Boise, Idaho facility.

DAM:tk

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Tesoro (Boise)
T1-010917
October 22, 2001

ATTACHMENT A

Facility-wide Potential to Emit Estimation of VOCs

Tesoro West Coast Company
Boise, Idaho
Bulk Gasoline and Petroleum Distillate Fuel Distribution Terminal

Facility Emissions Include:

- 1 Loading rack loading loss
- 2 storage tanks working loss (emptying and filling)
- 3 storage tanks standing loss
- 4 fugitive losses

Each emissions type results in volatile organic compounds emissions and hazardous air pollutant emissions

Loading Losses

$$L = 12.46 * (S * P * M) / (T)$$

L = loading loss in pounds per 1000 gallons loaded

S = saturation factor based on loading operation design (value from AP-42, Table 5.2-1)

P = true vapor pressure of liquid loaded (in pounds per square inch absolute, or psia)

M = molecular weight of vapor phase constituent (in pounds per pound mole, or lb/lb-mole)

T = bulk liquid temperature of the liquid loaded (in degrees Rankine)

GASOLINE RVP 10

Facility throughput = 121.72 million gallons per year
333485 gallons per day

Assumptions from TANKS 4.0 on standard gasoline composition

P = 4.5022 psia

M = 66 lb/lb-mole

S = 0.6 saturation factor for submerged loading and dedicated normal service
for a tank truck

T = 51 degrees Fahrenheit for a bulk liquid temperature (to two significant figures from Tanks 4.0)

T = 511 degrees Rankine for a bulk liquid temperature

GASOLINE

| | |
|-----------------------------------------------------------|-------------------------------------------------------------------|
| Loading Loss Emission Factor | 4.35 lb / 1000 gallons loaded |
| 1998 US EPA Region X Annual Reporting Throughput | 121.72 million gallons per year |
| Total Volatile Organic Compound Emissions Gasoline | 529150.31 lbs VOCs per year from the loading rack operation alone |
| Loading Rack PTE = | 265 Tons of VOCs per year |

DISTILLATE FUEL OIL

| | |
|----------------------------|--------------------------------------------------------------------------------------------|
| | Assumptions from TANKS 4.0 on standard distillate fuel oil (Number 2) composition |
| P = | 0.0054 psia |
| M = | 130 lb/lb-mole |
| S = | 0.6 saturation factor for submerged loading and dedicated normal service for a tank truck |
| T = | 51 degrees Fahrenheit for a bulk liquid temperature (to two signif. figures from Tanks 4.0 |
| T = | 511 degrees Rankine for a bulk liquid temperature |
| Loading Loss Factor | 0.010270356 lb VOCs / 1000 gallons |
| PTE Throughput = | 175000000.00 gallons per year |
| | 1797.31 lb / year |
| | 0.90 Tons/year |

Storage Tanks Emissions

| Tank Identification | | VOC Emissions lb/year | VOC Emissions Tons/year | |
|---------------------|--------------------|--------------------------|----------------------------|---------------------------------|
| TK 2001 | Petroleum products | 3050 | 1.525 | |
| TK 2002 | Petroleum products | 2004 | 1.002 | |
| TK 2003 | Petroleum products | 2344 | 1.172 | |
| TK 2004 | Distillate | | 0.61 | Page 5-4, 1998 Tier I OP update |
| TK 2005 | Transmix | | 1.54 | Page 5-4, 1998 Tier I OP update |
| TK 2006 | Petroleum products | 2006 | 1.003 | |
| TK 2007 | Distillate | | 1.4 | Page 5-4, 1998 Tier I OP update |
| TK 2008 | Petroleum products | 3912 | 1.956 | |
| TK 2009 | Recoverable HCs | | 0.15 | Page 5-4, 1998 Tier I OP update |
| TK 2010 | Fuel Additives | negligible | | |
| TK 2011 | Fuel Additives | negligible | | |
| TK 2012 | Fuel Additives | negligible | | |
| TK 2013 | Fuel Additives | negligible | | |
| TK 2014 | Fuel Additives | negligible | | |
| TK 2015 | Fuel Additives | negligible | | |
| TK 2016 | Fuel Additives | negligible | | |

Storage Tanks Total 10.358

Loading Rack

Gasoline Loading 265

Distillate Fuel Loading 0.90

Facility-wide VOCs emissions: 276 Tons per year

Equipment leak fugitives 0.225 value taken from page 5-2, 1998 application update from Amoco

Note: Distillate Fuel Storage Tanks and all tanks other than the gasoline storage tanks were taken from Amoco's Tier I OP application update, dated September 22, 1998. That submittal utilized TANKS 3.1 to estimate all storage tank emissions. TANKS 4.07 was used to estimate gasoline storage tank emissions

The term "petroleum products" applies to tanks that are allowed to store either gasoline or distillate fuels. The worst case product for potential to emit estimates is gasoline and that liquid is used in these estimates.

This is not a "designated" facility as defined by IDAPA 58.01.01.006.27 which specifies an applicability threshold of 12.6 million U.S gallons of storage capacity.

For major source PTE determination of VOCs, fugitive emissions do not count toward that PTE value.

TANKS 4.0
Emissions Report - Detail Format
Tank Identification and Physical Characteristics

Identification

| | |
|----------------------|-----------------------------------------------------------|
| User Identification: | Tank ID - TK 2008 VOC PTE |
| City: | Boise |
| State: | Idaho |
| Company: | Tesoro West Coast Company |
| Type of Tank: | Domed External Floating Roof Tank |
| Description: | Assumed standard TANKs 4.0 speciation ASTM slope = 3.0 |

Tank Dimensions

| | |
|-------------------|--------------|
| Diameter (ft): | 80.00 |
| Volume (gallons): | 1,768,200.00 |
| Turnovers: | 68.84 |

Paint Characteristics

| | |
|---------------------------|-------------|
| Internal Shell Condition: | Light Rust |
| Shell Color/Shade: | White/White |
| Shell Condition: | Good |

Roof Characteristics

| | |
|-------------------|-------------|
| Type: | Double Deck |
| Fitting Category: | Typical |

Tank Construction and Rim-Seal System

| | |
|-----------------|-----------------|
| Construction: | Welded |
| Primary Seal: | Mechanical Shoe |
| Secondary Seal: | None |

Deck Fitting/Status

| | Quantity |
|-----------------------------------------------------------------------|----------|
| Access Hatch (24-in. Diam.)/Bolted Cover, Gasketed | 1 |
| Automatic Gauge Float Well/Unbolted Cover, Ungasketed | 1 |
| Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask. | 1 |
| Unslotted Guide-Pole Well/Ungasketed Sliding Cover | 1 |
| Gauge-Hatch/Sample Well (8-in. Diam.)/Weighted Mech. Actuation, Gask. | 1 |
| Roof Drain (3-in. Diameter)/Open | 1 |
| Roof Leg (3-in. Diameter)/Adjustable, Double-Deck Roofs | 16 |
| Rim Vent (6-in. Diameter)/Weighted Mech. Actuation, Gask. | 1 |

Meteorological Data used in Emissions Calculations: Boise, Idaho (Avg Atmospheric Pressure = 13.28 psia)

TANKS 4.0 **Emissions Report - Detail Format** **Liquid Contents of Storage Tank**

| Mixture/Component | Month | Daily Liquid Surf. Temperatures (deg F) | | | Liquid Bulk Temp. (deg F) | Vapor Pressures (psia) | | | Vapor Mol. Weight | Liquid Mass Fract. | Vapor Mass Fract. | Mol. Weight | Basis for Vapor Pressure Calculations |
|-------------------|-------|-----------------------------------------|-------|-------|---------------------------|------------------------|------|------|-------------------|--------------------|-------------------|-------------|---------------------------------------|
| | | Avg. | Min. | Max. | | Avg. | Min. | Max. | | | | | |
| Gasoline (RVP 10) | All | 52.81 | 46.88 | 58.74 | 50.94 | 4.5022 | N/A | N/A | 66.0000 | | | 92.00 | Option 4: RVP=10, ASTM Slope=3 |

TANKS 4.0 Emissions Report - Detail Format Detail Calculations (AP-42)

| Annual Emission Calculations | |
|--------------------------------------------------------------------|---------------|
| Rim Seal Losses (lb): | 3,158.0183 |
| Seal Factor A (lb-mole/ft-yr): | 5.8000 |
| Seal Factor B (lb-mole/ft-yr (mph) ^{1/2}): | 0.3000 |
| Average Wind Speed (mph): | 0.0000 |
| Seal-related Wind Speed Exponent: | 2.1000 |
| Value of Vapor Pressure Function: | 0.1031 |
| Vapor Pressure at Daily Average Liquid Surface Temperature (psia): | 4.5022 |
| Tank Diameter (ft): | 80.0000 |
| Vapor Molecular Weight (lb/lb-mole): | 66.0000 |
| Product Factor: | 1.0000 |
| Withdrawal Losses (lb): | 286.9549 |
| Annual Net Throughput (gal/yr.): | 121,720,000.0 |
| | 000 |
| Shell Clingage Factor (bbl/1000 sqft): | 0.0015 |
| Average Organic Liquid Density (lb/gal): | 5.6000 |
| Tank Diameter (ft): | 80.0000 |
| Roof Fitting Losses (lb): | 466.8968 |
| Value of Vapor Pressure Function: | 0.1031 |
| Vapor Molecular Weight (lb/lb-mole): | 66.0000 |
| Product Factor: | 1.0000 |
| Tot. Roof Fitting Loss Fact. (lb-mole/yr): | 68.6000 |
| Average Wind Speed (mph): | 0.0000 |

| Roof Fitting/Status | Quantity | Roof Fitting Loss Factors | | m | Losses (lb.) |
|----------------------------------------------------------------------|----------|---------------------------|----------------------------------------|------|--------------|
| | | KFa (lb-mole/yr) | KFb (lb-mole/yr (mph) ^{1/2}) | | |
| Access Hatch (24-in. Diam./Bolted Cover, Gasketed) | 1 | 1.60 | 0.00 | 0.00 | 10.8897 |
| Automatic Gauge Float Well/Unbolted Cover, Ungasketed | 1 | 14.00 | 5.40 | 1.10 | 95.2851 |
| Vacuum Breaker (10-in. Diam./Weighted Mech. Actuation, Gask. | 1 | 6.20 | 1.20 | 0.94 | 42.1977 |
| Unslotted Guide-Pole Well/Ungasketed Sliding Cover | 1 | 31.00 | 150.00 | 1.40 | 210.9684 |
| Gauge-Hatch/Sample Well (8-in. Diam./Weighted Mech. Actuation, Gask. | 1 | 0.47 | 0.02 | 0.97 | 3.1989 |
| Roof Drain (3-in. Diameter)/Open | 1 | 1.50 | 0.21 | 1.70 | 10.2091 |
| Roof Leg (3-in. Diameter)/Adjustable, Double-Deck Roofs | 16 | 0.82 | 0.53 | 0.14 | 89.2957 |
| Rim Vent (6-in. Diameter)/Weighted Mech. Actuation, Gask. | 1 | 0.71 | 0.10 | 1.00 | 4.6323 |

Total Losses (lb): 3,911.8710

TANKS 4.0
Emissions Report - Detail Format
Individual Tank Emission Totals

Annual Emissions Report

| Components | Losses(lbs) | | | | Total Emissions |
|-------------------|---------------|-----------------|-------------------|----------------|-----------------|
| | Rim Seal Loss | Withdrawal Loss | Deck Fitting Loss | Deck Seam Loss | |
| Gasoline (RVP 10) | 3,158.02 | 286.95 | 466.90 | 0.00 | 3,911.87 |

TANKS 4.0
Emissions Report - Detail Format
Tank Identification and Physical Characteristics

Identification

User Identification: Tank ID - TK 2001
City: Boise
State: Idaho
Company: Tesoro West Coast Company
Type of Tank: Domed External Floating Roof Tank
Description: In 1998 Amoco Oil stated that these are domed internal floating roof tanks.
This calculation assumes standard RVP 10 gas and is intended to estimate emissions of VOCS

Tank Dimensions

Diameter (ft): 56.00
Volume (gallons): 861,000.00
Turnovers: 141.37

Paint Characteristics

Internal Shell Condition: Light Rust
Shell Color/Shade: White/White
Shell Condition: Good

Roof Characteristics

Type: Double Deck
Fitting Category: Typical

Tank Construction and Rim-Seal System

Construction: Welded
Primary Seal: Mechanical Shoe
Secondary Seal: None

Deck Fitting/Status

| | Quantity |
|-----------------------------------------------------------------------|----------|
| Access Hatch (24-in. Diam.)/Bolted Cover, Gasketed | 1 |
| Automatic Gauge Float Well/Unbolted Cover, Ungasketed | 1 |
| Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask. | 1 |
| Unslotted Guide-Pole Well/Ungasketed Sliding Cover | 1 |
| Gauge-Hatch/Sample Well (8-in. Diam.)/Weighted Mech. Actuation, Gask. | 1 |
| Roof Drain (3-in. Diameter)/Open | 1 |
| Roof Leg (3-in. Diameter)/Adjustable, Double-Deck Roofs | 10 |
| Rim Vent (6-in. Diameter)/Weighted Mech. Actuation, Gask. | 1 |

Meteorological Data used in Emissions Calculations: Boise, Idaho (Avg Atmospheric Pressure = 13.28 psia)

TANKS 4.0 Emissions Report - Detail Format Liquid Contents of Storage Tank

| Mixture/Component | Month | Daily Liquid Surf. Temperatures (deg F) | | | Liquid Bulk Temp. (deg F) | Vapor Pressures (psia) | | | Vapor Mol. Weight | Liquid Mass Fract. | Vapor Mass Fract. | Mol. Weight | Basis for Vapor Pressure Calculations |
|--------------------------------|-------|--------------------------------------------|-------|-------|------------------------------------|------------------------|------|------|-------------------------|--------------------------|-------------------------|----------------|------------------------------------------|
| | | Avg. | Min. | Max. | | Avg. | Min. | Max. | | | | | |
| Gasoline (RVP 10) | All | 52.81 | 46.88 | 58.74 | 50.94 | 4.5022 | N/A | N/A | 66.0000 | | | 92.00 | Option 4: RVP=10, ASTM Slope=3 |
| 2,2,4-Trimethylpentane | | | | | | 0.4825 | N/A | N/A | 114.2300 | 0.0003 | 0.0000 | 114.23 | Option 2: A=6.8118, B=1257.84, C=220.74 |
| Benzene | | | | | | 0.9535 | N/A | N/A | 78.1100 | 0.0004 | 0.0001 | 78.11 | Option 2: A=6.905, B=1211.033, C=220.79 |
| Ethylbenzene | | | | | | 0.0841 | N/A | N/A | 106.1700 | 0.0001 | 0.0000 | 106.17 | Option 2: A=6.975, B=1424.255, C=213.21 |
| Hexane (-n) | | | | | | 1.5821 | N/A | N/A | 86.1700 | 0.0004 | 0.0002 | 86.17 | Option 2: A=6.876, B=1171.17, C=224.41 |
| Isopropyl benzene | | | | | | 0.0389 | N/A | N/A | 120.2000 | 0.0000 | 0.0000 | 120.20 | Option 2: A=6.963, B=1460.793, C=207.76 |
| Methyl-tert-butyl ether (MTBE) | | | | | | 2.7025 | N/A | N/A | 88.1500 | 0.0005 | 0.0004 | 88.15 | Option 1: VP50 = 2.5 VP60 = 3.22 |
| Toluene | | | | | | 0.2629 | N/A | N/A | 92.1300 | 0.0010 | 0.0001 | 92.13 | Option 2: A=6.954, B=1344.8, C=219.48 |
| Unidentified Components | | | | | | 4.5128 | N/A | N/A | 85.9860 | 0.9970 | 0.9991 | 92.00 | |
| Xylene (-m) | | | | | | 0.0899 | N/A | N/A | 106.1700 | 0.0002 | 0.0000 | 106.17 | Option 2: A=7.009, B=1462.266, C=215.11 |
| Xylene (-o) | | | | | | 0.0547 | N/A | N/A | 106.1700 | 0.0001 | 0.0000 | 106.17 | Option 2: A=6.998, B=1474.879, C=213.69 |

TANKS 4.0 Emissions Report - Detail Format Detail Calculations (AP-42)

| | |
|--------------------------------------------------------------------|---------------|
| Annual Emission Calculations | |
| Rim Seal Losses (lb): | 2,210.6135 |
| Seal Factor A (lb-mole/ft-yr): | 5.8000 |
| Seal Factor B (lb-mole/ft-yr (mph) ^{1/4}): | 0.3000 |
| Average Wind Speed (mph): | 0.0000 |
| Seal-related Wind Speed Exponent: | 2.1000 |
| Value of Vapor Pressure Function: | 0.1031 |
| Vapor Pressure at Daily Average Liquid Surface Temperature (psia): | 4.5022 |
| Tank Diameter (ft): | 56.0000 |
| Vapor Molecular Weight (lb/lb-mole): | 66.0000 |
| Product Factor: | 1.0000 |
| Withdrawal Losses (lb): | 409.8356 |
| Annual Net Throughput (gal/yr.): | 121,720,000.0 |
| | 000 |
| Shell Clingage Factor (bbl/1000 sqft): | 0.0015 |
| Average Organic Liquid Density (lb/gal): | 5.6000 |
| Tank Diameter (ft): | 56.0000 |
| Roof Fitting Losses (lb): | 433.4109 |
| Value of Vapor Pressure Function: | 0.1031 |
| Vapor Molecular Weight (lb/lb-mole): | 66.0000 |
| Product Factor: | 1.0000 |
| Tot. Roof Fitting Loss Fact.(lb-mole/yr): | 63.6800 |
| Average Wind Speed (mph): | 0.0000 |

| Roof Fitting/Status | Quantity | KF _A (lb-mole/yr) | Roof Fitting Loss Factors | | m | Losses (lb.) |
|----------------------------------------------------------------------|----------|------------------------------|--------------------------------------------------|--|------|--------------|
| | | | KF _B (lb-mole/yr mph ^{1/4}) | | | |
| Access Hatch (24-in. Diam./Bolted Cover, Gasketed) | 1 | 1.60 | 0.00 | | 0.00 | 10.8897 |
| Automatic Gauge Float Well/Unbolted Cover, Ungasketed | 1 | 14.00 | 5.40 | | 1.10 | 95.2851 |
| Vacuum Breaker (10-in. Diam./Weighted Mech. Actuation, Gask. | 1 | 6.20 | 1.20 | | 0.94 | 42.1977 |
| Unslotted Guide-Pole Well/Ungasketed Sliding Cover | 1 | 31.00 | 150.00 | | 1.40 | 210.9884 |
| Gauge-Hatch/Sample Well (8-in. Diam./Weighted Mech. Actuation, Gask. | 1 | 0.47 | 0.02 | | 0.97 | 3.1989 |
| Roof Drain (3-in. Diameter)/Open | 1 | 1.50 | 0.21 | | 1.70 | 10.2091 |
| Roof Leg (3-in. Diameter)/Adjustable, Double-Deck Roofs | 10 | 0.82 | 0.53 | | 0.14 | 55.8098 |
| Rim Vent (8-in. Diameter)/Weighted Mech. Actuation, Gask. | 1 | 0.71 | 0.10 | | 1.00 | 4.8323 |

Total Losses (lb): 3,053.9600

TANKS 4.0
Emissions Report - Detail Format
Individual Tank Emission Totals

Annual Emissions Report

| Components | Losses(lbs) | | | | Total Emissions |
|--------------------------------|---------------|-----------------|-------------------|----------------|-----------------|
| | Rim Seal Loss | Withdrawal Loss | Deck Fitting Loss | Deck Seam Loss | |
| Gasoline (RVP 10) | 2,210.61 | 409.94 | 433.41 | 0.00 | 3,053.96 |
| Benzene | 0.27 | 0.17 | 0.05 | 0.00 | 0.49 |
| Ethylbenzene | 0.00 | 0.03 | 0.00 | 0.00 | 0.03 |
| Hexane (-n) | 0.47 | 0.18 | 0.09 | 0.00 | 0.73 |
| Isopropyl benzene | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Methyl-tert-butyl ether (MTBE) | 0.88 | 0.19 | 0.17 | 0.00 | 1.25 |
| Toluene | 0.18 | 0.41 | 0.04 | 0.00 | 0.63 |
| 2,2,4-Trimethylpentane | 0.10 | 0.12 | 0.02 | 0.00 | 0.23 |
| Xylene (-m) | 0.01 | 0.08 | 0.00 | 0.00 | 0.09 |
| Xylene (-o) | 0.00 | 0.04 | 0.00 | 0.00 | 0.04 |
| Unidentified Components | 2,208.71 | 408.72 | 433.04 | 0.00 | 3,050.46 |

TANKS 4.0

Emissions Report - Detail Format

Tank Identification and Physical Characteristics

Identification

User Identification: TANK ID - TK 2002
 City: Boise
 State: Idaho
 Company: Tesoro West Coast Company
 Type of Tank: Domed External Floating Roof Tank
 Description: In 1998 Amoco Oil stated that these are domed internal floating roof tanks.
 This calculation assumes standard RVP 10 gas and is intended to estimate emissions of VOCS

Tank Dimensions

Diameter (ft): 100.00
 Volume (gallons): 2,772,000.00
 Turnovers: 43.91

Paint Characteristics

Internal Shell Condition: Light Rust
 Shell Color/Shade: White/White
 Shell Condition: Good

Roof Characteristics

Type: Pontoon
 Fitting Category: Typical

Tank Construction and Rim-Seal System

Construction: Welded
 Primary Seal: Mechanical Shoe
 Secondary Seal: Shoe-mounted

Deck Fitting/Status

| | Quantity |
|-----------------------------------------------------------------------|----------|
| Access Hatch (24-in. Diam.)/Bolted Cover, Gasketed | 1 |
| Automatic Gauge Float Well/Unbolted Cover, Ungasketed | 1 |
| Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask. | 1 |
| Unslotted Guide-Pole Well/Ungasketed Sliding Cover | 1 |
| Gauge-Hatch/Sample Well (8-in. Diam.)/Weighted Mech. Actuation, Gask. | 1 |
| Roof Leg (3-in. Diameter)/Adjustable, Pontoon Area, Ungasketed | 17 |
| Roof Leg (3-in. Diameter)/Adjustable, Center Area, Ungasketed | 16 |
| Rim Vent (6-in. Diameter)/Weighted Mech. Actuation, Gask. | 1 |

Meteorological Data used in Emissions Calculations: Boise, Idaho (Avg Atmospheric Pressure = 13.28 psia)

TANKS 4.0 Emissions Report - Detail Format Liquid Contents of Storage Tank

| Mixture/Component | Month | Daily Liquid Surf. Temperatures (deg F) | | | Liquid Bulk Temp. (deg F) | Vapor Pressures (psia) | | | Vapor Mol. Weight | Liquid Mass Fract. | Vapor Mass Fract. | Mol. Weight | Basis for Vapor Pressure Calculations |
|--------------------------------|-------|--------------------------------------------|-------|-------|------------------------------------|------------------------|------|------|-------------------------|--------------------------|-------------------------|----------------|------------------------------------------|
| | | Avg. | Min. | Max. | | Avg. | Min. | Max. | | | | | |
| Gasoline (RVP 10) | All | 52.81 | 46.88 | 58.74 | 50.94 | 4.5022 | N/A | N/A | 66.0000 | 0.0003 | 0.0000 | 92.00 | Option 4: RVP=10, ASTM Slope=3 |
| 2,2,4-Trimethylpentane | | | | | | 0.4825 | N/A | N/A | 114.2300 | 0.0004 | 0.0001 | 114.23 | Option 2: A=6.8118, B=1257.84, C=220.74 |
| Benzene | | | | | | 0.9535 | N/A | N/A | 78.1100 | 0.0001 | 0.0000 | 78.11 | Option 2: A=6.905, B=1211.033, C=220.79 |
| Ethylbenzene | | | | | | 0.0841 | N/A | N/A | 106.1700 | 0.0001 | 0.0000 | 106.17 | Option 2: A=6.975, B=1424.255, C=213.21 |
| Hexane (-n) | | | | | | 1.5821 | N/A | N/A | 86.1700 | 0.0004 | 0.0002 | 86.17 | Option 2: A=6.876, B=1171.17, C=224.41 |
| Isopropyl benzene | | | | | | 0.0389 | N/A | N/A | 120.2000 | 0.0000 | 0.0000 | 120.20 | Option 2: A=6.963, B=1460.793, C=207.78 |
| Methyl-tert-butyl ether (MTBE) | | | | | | 2.7025 | N/A | N/A | 88.1500 | 0.0005 | 0.0004 | 88.15 | Option 1: VP50 = 2.5 VP60 = 3.22 |
| Toluene | | | | | | 0.2629 | N/A | N/A | 92.1300 | 0.0010 | 0.0001 | 92.13 | Option 2: A=6.954, B=1344.8, C=219.48 |
| Unidentified Components | | | | | | 4.5128 | N/A | N/A | 85.9860 | 0.9970 | 0.9991 | 92.00 | |
| Xylene (-m) | | | | | | 0.0699 | N/A | N/A | 106.1700 | 0.0002 | 0.0000 | 106.17 | Option 2: A=7.009, B=1462.268, C=215.11 |
| Xylene (-o) | | | | | | 0.0547 | N/A | N/A | 106.1700 | 0.0001 | 0.0000 | 106.17 | Option 2: A=6.998, B=1474.879, C=213.69 |

TANKS 4.0 Emissions Report - Detail Format Detail Calculations (AP-42)

| | |
|--------------------------------------------------------------------|---------------|
| Annual Emission Calculations | |
| Rim Seal Losses (lb): | 1,088.9722 |
| Seal Factor A (lb-mole/m-yr): | 1.6000 |
| Seal Factor B (lb-mole/m-yr (mph) ^{1/4}): | 0.3000 |
| Average Wind Speed (mph): | 0.0000 |
| Seal-related Wind Speed Exponent: | 1.8000 |
| Value of Vapor Pressure Function: | 0.1031 |
| Vapor Pressure at Daily Average Liquid Surface Temperature (psia): | 4.5022 |
| Tank Diameter (ft): | 100.0000 |
| Vapor Molecular Weight (lb/lb-mole): | 66.0000 |
| Product Factor: | 1.0000 |
| Withdrawal Losses (lb): | 229.5639 |
| Annual Net Throughput (gal/yr.): | 121,720,000.0 |
| Shell Clingage Factor (bbl/1000 sqft): | 0.0015 |
| Average Organic Liquid Density (lb/gal): | 5.6000 |
| Tank Diameter (ft): | 100.0000 |
| Roof Fitting Losses (lb): | 688.0943 |
| Value of Vapor Pressure Function: | 0.1031 |
| Vapor Molecular Weight (lb/lb-mole): | 66.0000 |
| Product Factor: | 1.0000 |
| Tot. Roof Fitting Loss Fact.(lb-mole/yr): | 101.1000 |
| Average Wind Speed (mph): | 0.0000 |

| Roof Fitting/Status | Quantity | KF _a (lb-mole/yr) | Roof Fitting Loss Factors | | m | Losses (lb.) |
|-----------------------------------------------------------------------|----------|------------------------------|-----------------------------------------------------|--|------|--------------|
| | | | KF _b (lb-mole/(yr mph ^{1/4} n)) | | | |
| Access Hatch (24-in. Diam.) Bolted Cover, Gasketed | 1 | 1.60 | 0.00 | | 0.00 | 10.8897 |
| Automatic Gauge Float Well/Unbolted Cover, Ungasketed | 1 | 14.00 | 5.40 | | 1.10 | 95.2851 |
| Vacuum Breaker (10-in. Diam.) Weighted Mech. Actuation, Gask. | 1 | 8.20 | 1.20 | | 0.94 | 42.1977 |
| Unslotted Guide-Pole Well/Ungasketed Sliding Cover | 1 | 31.00 | 150.00 | | 1.40 | 210.9884 |
| Gauge-Hatch/Sample Well (8-in. Diam.) Weighted Mech. Actuation, Gask. | 1 | 0.47 | 0.02 | | 0.97 | 3.1989 |
| Roof Leg (3-in. Diameter)/Adjustable, Pontoon Area, Ungasketed | 17 | 2.00 | 0.37 | | 0.91 | 231.4066 |
| Roof Leg (3-in. Diameter)/Adjustable, Center Area, Ungasketed | 16 | 0.82 | 0.53 | | 0.14 | 69.2957 |
| Rim Vent (6-in. Diameter)/Weighted Mech. Actuation, Gask. | 1 | 0.71 | 0.10 | | 1.00 | 4.8323 |

Total Losses (lb): 2,006.6304

TANKS 4.0 **Emissions Report - Detail Format** **Individual Tank Emission Totals**

Annual Emissions Report

| Components | Losses(lbs) | | | | Total Emissions |
|--------------------------------|---------------|-----------------|-------------------|----------------|-----------------|
| | Rim Seal Loss | Withdrawal Loss | Deck Fitting Loss | Deck Seam Loss | |
| Gasoline (RVP 10) | 1,088.97 | 229.56 | 688.09 | 0.00 | 2,006.63 |
| Benzene | 0.13 | 0.09 | 0.08 | 0.00 | 0.31 |
| Ethylbenzene | 0.00 | 0.02 | 0.00 | 0.00 | 0.02 |
| Hexane (-n) | 0.23 | 0.10 | 0.14 | 0.00 | 0.47 |
| Isopropyl benzene | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Methyl-tert-butyl ether (MTBE) | 0.43 | 0.11 | 0.27 | 0.00 | 0.82 |
| Toluene | 0.09 | 0.23 | 0.06 | 0.00 | 0.37 |
| 2,2,4-Trimethylpentane | 0.05 | 0.07 | 0.03 | 0.00 | 0.14 |
| Xylene (-m) | 0.00 | 0.05 | 0.00 | 0.00 | 0.05 |
| Xylene (-o) | 0.00 | 0.02 | 0.00 | 0.00 | 0.02 |
| Unidentified Components | 1,088.03 | 228.88 | 687.50 | 0.00 | 2,004.42 |

TANKS 4.0
Emissions Report - Detail Format
Tank Identification and Physical Characteristics

Identification

User Identification: Tank 2003- VOC PTE
City: Boise
State: Idaho
Company: Tesoro West Coast Company
Type of Tank: Internal Floating Roof Tank
Description: Assuming that the internal floating roof design is accurate - not domed external floating roof - this is not intended to estimate HAPs PTE. ASTM Slope factor is 3.0 for this RVP 10 gasoline. Amoco's original submittal had an ASTM slope factor of 2.5.

Tank Dimensions

Diameter (ft): 56.00
Volume (gallons): 766,500.00
Turnovers: 158.80
Self Supp. Roof? (y/n): Y
No. of Columns: 0.00
Eff. Col. Diam. (ft): 0.00

Paint Characteristics

Internal Shell Condition: Light Rust
Shell Color/Shade: White/White
Shell Condition: Good
Roof Color/Shade: White/White
Roof Condition: Good

Rim-Seal System

Primary Seal: Liquid-mounted
Secondary Seal: None

Deck Characteristics

Deck Fitting Category: Typical
Deck Type: Welded

Deck Fitting/Status

| | Quantity |
|---------------------------------------------------------------|----------|
| Access Hatch (24-in. Diam.)/Unbolted Cover, Ungasketed | 1 |
| Automatic Gauge Float Well/Unbolted Cover, Ungasketed | 1 |
| Roof Leg or Hanger Well/Adjustable | 16 |
| Sample Pipe or Well (24-in. Diam.)/Slit Fabric Seal 10% Open | 1 |
| Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask. | 1 |

Meteorological Data used in Emissions Calculations: Boise, Idaho (Avg Atmospheric Pressure = 13.28 psia)

TANKS 4.0 **Emissions Report - Detail Format** **Liquid Contents of Storage Tank**

| Mixture/Component | Month | Daily Liquid Surf. Temperatures (deg F) | | | Liquid Bulk Temp. (deg F) | Vapor Pressures (psia) | | | Vapor Mol. Weight | Liquid Mass Fract. | Vapor Mass Fract. | Mol. Weight | Basis for Vapor Pressure Calculations |
|-------------------|-------|-----------------------------------------|-------|-------|---------------------------|------------------------|------|------|-------------------|--------------------|-------------------|-------------|---------------------------------------|
| | | Avg. | Min. | Max. | | Avg. | Min. | Max. | | | | | |
| Gasoline (RVP 10) | All | 52.81 | 46.88 | 58.74 | 50.94 | 4.5022 | N/A | N/A | 66.0000 | | | 92.00 | Option 4: RVP=10, ASTM Slope=3 |

TANKS 4.0 Emissions Report - Detail Format Detail Calculations (AP-42)

| Annual Emission Calculations | |
|--------------------------------------------------------------------|---------------|
| Rim Seal Losses (lb): | 609.8244 |
| Seal Factor A (lb-mole/ft-yr): | 1.6000 |
| Seal Factor B (lb-mole/ft-yr (mph) ^{1/2}): | 0.3000 |
| Value of Vapor Pressure Function: | 0.1031 |
| Vapor Pressure at Daily Average Liquid Surface Temperature (psia): | 4.5022 |
| Tank Diameter (ft): | 56.0000 |
| Vapor Molecular Weight (lb/lb-mole): | 66.0000 |
| Product Factor: | 1.0000 |
| Withdrawal Losses (lb): | 409.9356 |
| Number of Columns: | 0.0000 |
| Effective Column Diameter (ft): | 0.0015 |
| Annual Net Throughput (gal/yr.): | 121,720,000.0 |
| | 000 |
| Shell Clingage Factor (bbl/1000 sqft): | 0.0015 |
| Average Organic Liquid Density (lb/gal): | 5.6000 |
| Tank Diameter (ft): | 56.0000 |
| Deck Fitting Losses (lb): | 1,324.4624 |
| Value of Vapor Pressure Function: | 0.1031 |
| Vapor Molecular Weight (lb/lb-mole): | 66.0000 |
| Product Factor: | 1.0000 |
| Tot. Roof Fitting Loss Fact.(lb-mole/yr): | 194.8000 |
| Deck Seam Losses (lb): | 0.0000 |
| Deck Seam Length (ft): | 0.0000 |
| Deck Seam Loss per Unit Length Factor (lb-mole/ft-yr): | 0.0000 |
| Deck Seam Length Factor(ft/sqft): | 0.0000 |
| Tank Diameter (ft): | 56.0000 |
| Vapor Molecular Weight (lb/lb-mole): | 66.0000 |
| Product Factor: | 1.0000 |

| Deck Fitting/Status | Quantity | KF _a (lb-mole/yr) | Deck Fitting Loss Factors | | m | Losses (lb.) |
|--------------------------------------------------------------|----------|------------------------------|----------------------------------------------------|--|------|--------------|
| | | | KF _b (lb-mole/yr (mph) ^{1/2}) | | | |
| Access Hatch (24-in. Diam.)Unbolted Cover, Ungasketed | 1 | 36.00 | 5.90 | | 1.20 | 245.0187 |
| Automatic Gauge Float Well/Unbolted Cover, Ungasketed | 1 | 14.00 | 5.40 | | 1.10 | 95.2851 |
| Roof Leg or Hanger Well/Adjustable | 16 | 7.90 | 0.00 | | 0.00 | 860.2880 |
| Sample Pipe or Well (24-in. Diam.)Silt Fabric Seal 10% Open | 1 | 12.00 | 0.00 | | 0.00 | 81.6729 |
| Vacuum Breaker (10-in. Diam.)Weighted Mech. Actuation, Gask. | 1 | 6.20 | 1.20 | | 0.94 | 42.1977 |

Total Losses (lb): 2,344.2224

TANKS 4.0
Emissions Report - Detail Format
Individual Tank Emission Totals

Annual Emissions Report

| Components | Losses(lbs) | | | | Total Emissions |
|-------------------|---------------|-----------------|-------------------|----------------|-----------------|
| | Rim Seal Loss | Withdrawal Loss | Deck Fitting Loss | Deck Seam Loss | |
| Gasoline (RVP 10) | 609.82 | 409.94 | 1,324.46 | 0.00 | 2,344.22 |

TANKS 4.0
Emissions Report - Detail Format
Tank Identification and Physical Characteristics

Identification

| | |
|----------------------|-------------------------------------------------------------------------------------------------------------------|
| User Identification: | Tank ID - TK 2006 VOC PTE |
| City: | Boise |
| State: | Idaho |
| Company: | Tesoro West Coast Company |
| Type of Tank: | Domed External Floating Roof Tank |
| Description: | Domed external floating roof tank with the standard gasoline RVP 10 liquid physical properties (ASTM Slope = 3.0) |

Tank Dimensions

| | |
|-------------------|--------------|
| Diameter (ft): | 100.00 |
| Volume (gallons): | 2,772,000.00 |
| Turnovers: | 43.75 |

Paint Characteristics

| | |
|---------------------------|-------------|
| Internal Shell Condition: | Light Rust |
| Shell Color/Shade: | White/White |
| Shell Condition: | Good |

Roof Characteristics

| | |
|-------------------|---------|
| Type: | Pontoon |
| Fitting Category: | Typical |

Tank Construction and Rim-Seal System

| | |
|-----------------|-----------------|
| Construction: | Welded |
| Primary Seal: | Mechanical Shoe |
| Secondary Seal: | Shoe-mounted |

Deck Fitting/Status

| | Quantity |
|-----------------------------------------------------------------------|----------|
| Access Hatch (24-in. Diam.)/Bolted Cover, Gasketed | 1 |
| Automatic Gauge Float Well/Unbolted Cover, Ungasketed | 1 |
| Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask. | 1 |
| Unslotted Guide-Pole Well/Ungasketed Sliding Cover | 1 |
| Gauge-Hatch/Sample Well (8-in. Diam.)/Weighted Mech. Actuation, Gask. | 1 |
| Roof Leg (3-in. Diameter)/Adjustable, Pontoon Area, Ungasketed | 17 |
| Roof Leg (3-in. Diameter)/Adjustable, Center Area, Ungasketed | 16 |
| Rim Vent (6-in. Diameter)/Weighted Mech. Actuation, Gask. | 1 |

Meteorological Data used in Emissions Calculations: Boise, Idaho (Avg Atmospheric Pressure = 13.28 psia)

TANKS 4.0 **Emissions Report - Detail Format** **Liquid Contents of Storage Tank**

| Mixture/Component | Month | Daily Liquid Surf. Temperatures (deg F) | | | Liquid Bulk Temp. (deg F) | Vapor Pressures (psia) | | | Vapor Mol. Weight | Liquid Mass Fract. | Vapor Mass Fract. | Mol. Weight | Basis for Vapor Pressure Calculations |
|-------------------|-------|-----------------------------------------|-------|-------|---------------------------|------------------------|------|------|-------------------|--------------------|-------------------|-------------|---------------------------------------|
| | | Avg. | Min. | Max. | | Avg. | Min. | Max. | | | | | |
| Gasoline (RVP 10) | All | 52.81 | 46.88 | 58.74 | 50.94 | 4.5022 | N/A | N/A | 66.0000 | | | 92.00 | Option 4: RVP=10, ASTM Slope=3 |

TANKS 4.0 **Emissions Report - Detail Format** **Detail Calculations (AP-42)**

| Annual Emission Calculations | |
|--------------------------------------------------------------------|---------------|
| Rim Seal Losses (lb): | 1,088.9722 |
| Seal Factor A (lb-mole/ft-yr): | 1.6000 |
| Seal Factor B (lb-mole/ft-yr (mph) ^{0.75}): | 0.3000 |
| Average Wind Speed (mph): | 0.0000 |
| Seal-related Wind Speed Exponent: | 1.6000 |
| Value of Vapor Pressure Function: | 0.1031 |
| Vapor Pressure at Daily Average Liquid Surface Temperature (psia): | 4.5022 |
| Tank Diameter (ft): | 100.0000 |
| Vapor Molecular Weight (lb/lb-mole): | 66.0000 |
| Product Factor: | 1.0000 |
| Withdrawal Losses (lb): | 228.7152 |
| Annual Net Throughput (gal/yr.): | 121,270,000.0 |
| Shell Clingage Factor (bbl/1000 sqft): | 0.0015 |
| Average Organic Liquid Density (lb/gal): | 5.6000 |
| Tank Diameter (ft): | 100.0000 |
| Roof Fitting Losses (lb): | 688.0943 |
| Value of Vapor Pressure Function: | 0.1031 |
| Vapor Molecular Weight (lb/lb-mole): | 66.0000 |
| Product Factor: | 1.0000 |
| Tot. Roof Fitting Loss Fact. (lb-mole/yr): | 101.1000 |
| Average Wind Speed (mph): | 0.0000 |

| Roof Fitting/Status | Quantity | Roof Fitting Loss Factors | | m | Losses (lb.) |
|----------------------------------------------------------------------|----------|---------------------------|-----------------------------------------|------|--------------|
| | | KFa (lb-mole/yr) | KFb (lb-mole/(yr mph ^{0.75})) | | |
| Access Hatch (24-in. Diam./Bolted Cover, Gasketed) | 1 | 1.60 | 0.00 | 0.00 | 10.8897 |
| Automatic Gauge Float Well/Unbolted Cover, Ungasketed | 1 | 14.00 | 5.40 | 1.10 | 95.2651 |
| Vacuum Breaker (10-in. Diam./Weighted Mech. Actuation, Gask. | 1 | 6.20 | 1.20 | 0.94 | 42.1977 |
| Unslotted Guide-Pole Well/Ungasketed Sliding Cover | 1 | 31.00 | 150.00 | 1.40 | 210.9884 |
| Gauge-Hatch/Sample Well (8-in. Diam./Weighted Mech. Actuation, Gask. | 1 | 0.47 | 0.02 | 0.97 | 3.1989 |
| Roof Leg (3-in. Diameter)/Adjustable, Pontoon Area, Ungasketed | 17 | 2.00 | 0.37 | 0.91 | 231.4066 |
| Roof Leg (3-in. Diameter)/Adjustable, Center Area, Ungasketed | 16 | 0.82 | 0.53 | 0.14 | 89.2957 |
| Rim Vent (6-in. Diameter)/Weighted Mech. Actuation, Gask. | 1 | 0.71 | 0.10 | 1.00 | 4.6323 |

Total Losses (lb): 2,005.7817

TANKS 4.0
Emissions Report - Detail Format
Individual Tank Emission Totals

Annual Emissions Report

| Components | Losses(lbs) | | | | Total Emissions |
|-------------------|---------------|-----------------|-------------------|----------------|-----------------|
| | Rim Seal Loss | Withdrawal Loss | Deck Fitting Loss | Deck Seam Loss | |
| Gasoline (RVP 10) | 1,088.97 | 228.72 | 688.09 | 0.00 | 2,005.78 |

Tesoro (Boise)
T1-010917
October 22, 2001

ATTACHMENT B

**Technical Memorandum for Issuance of the May 23, 2001, Tier I OP to
Amoco Oil Company**

May 8, 2000

MEMORANDUM

TO: Orville D. Green, Program Administrator
State Air Quality Program

FROM: Darrin Mehr, Air Quality Engineer *DM*
Process Engineering Group
Technical Services Office

THROUGH: Dan Salgado, Lead *DS*
Process Engineering Group
Technical Services Office

SUBJECT: *Technical Analysis for Tier I Operating Permit #001-00093*
Amoco Oil Company, Boise Petroleum Marketing Terminal, Boise, Idaho

Permittee: Amoco Oil Company

PERMIT NO: 001-00093

STANDARD INDUSTRIAL CLASSIFICATION (SIC): 5171

DESCRIPTION: Bulk Gasoline and Distillate Fuel Oil Distribution Facility

KINDS OF PRODUCTS: Petroleum Products: Gasoline and Distillate Fuels

RESPONSIBLE OFFICIAL: Jeff J. Carter

TELEPHONE NO.: (208) 375-1250

FACILITY CLASSIFICATION: A1

COUNTY: Ada

AIR QUALITY CONTROL REGION: 064

UTM COORDINATES: X: 567.207 km; Y: 4833.15 km

TABLE OF CONTENTS

| | |
|-----------------------------------------------------|----|
| PUBLIC COMMENT | iv |
| LIST OF ACRONYMS AND ABBREVIATIONS | v |
| 1.0 PURPOSE | 6 |
| 2.0 SUMMARY OF EVENTS | 6 |
| 3.0 BASES OF THE ANALYSIS | 7 |
| 4.0 REGULATORY ANALYSIS - GENERAL FACILITY | 7 |
| 4.1 Facility Description | 7 |
| 4.1.1 General Process Description | 7 |
| 4.1.2 Facility Classification | 7 |
| 4.1.3 Area Classification | 8 |
| 4.1.4 Permitting History | 8 |
| 4.2 Facility-Wide Applicable Requirements | 10 |
| 4.2.1 Odors | 10 |
| 4.2.2 Excess Emissions | 10 |
| 4.2.3 Fugitive Dust | 10 |
| 4.2.4 Opacity | 10 |
| 4.2.5 Recordkeeping Requirements | 11 |
| 4.2.6 Monitoring Records | 12 |
| 4.2.7 Reporting Requirements | 12 |
| 4.2.8 Testing Requirements | 12 |
| 4.3 Hazardous Air Pollutants (HAPs) | 12 |
| 4.4 Alternative Operating Scenarios | 13 |
| 4.5 Emissions Trading | 13 |
| 4.6 Excess Emissions | 13 |
| 4.7 Affected States Notice and Review | 14 |
| 4.8 Non-Applicable Requirements | 14 |
| 4.8.1 New Source Performance Standards | 14 |
| 4.8.2 112(r) Risk Management Plans | 16 |
| 4.9 Permit to Construct #001-00093 | 17 |
| 5.0 Other Facility-Wide Conditions | 17 |
| 5.1 Distillate Fuel Sulfur Content | 17 |
| 5.1.1 Emission Description | 17 |
| 5.1.2 Applicable Requirements | 17 |
| 5.1.3 Compliance Determination | 19 |
| 5.1.4 Emission Limits and Standards Authority | 19 |
| 5.1.5 Monitoring Requirements | 19 |
| 5.1.6 Testing Requirements | 19 |
| 5.1.7 Recordkeeping Requirements | 20 |
| 5.1.8 Reporting Requirements | 20 |
| 5.2 Facility-wide Potential to Emit | 20 |
| 5.2.1 Emission Description | 20 |
| 5.2.2 Applicable Requirements | 20 |
| 5.2.3 Compliance Determination | 21 |
| 5.2.4 Emission Limits and Standards Authority | 21 |
| 5.2.5 Monitoring Requirements | 21 |
| 5.2.6 Testing Requirements | 21 |
| 5.2.7 Recordkeeping Requirements | 21 |
| 5.2.8 Reporting Requirements | 22 |

TABLE OF CONTENTS

| | | |
|------|-----------------------------------------------------|----|
| 6.0 | INSIGNIFICANT ACTIVITIES | 22 |
| 7.0 | COMPLIANCE PLAN AND COMPLIANCE CERTIFICATIONS | 24 |
| 8.0 | REGISTRATION FEES | 24 |
| 9.0 | RECOMMENDATIONS | 25 |
| 10.0 | AIRS FACILITY SUBSYSTEM | 26 |

Appendix A - Permit to Construct #001-00093, issued June 7, 1993

Appendix B - 40 CFR 63 - Subpart R - National Emission Standards for Gasoline Distribution Facilities, revised as of July 1, 1998

PUBLIC COMMENT

The permit will be issued as draft and will proceed through a public comment period. Official dates for the public comment period will be provided in the notifications for the public, affected states, and the permittee. The permit will be reviewed by the United States Environmental Protection Agency (EPA). EPA will receive the draft permit prior to the initiation of the public comment period. A public hearing will be scheduled following the public comment period if there is sufficient demand for the hearing. EPA will be sent the proposed operating permit and the technical analysis memorandum after the public comment/hearing for the forty-five (45) day review period.

LIST OF ACRONYMS AND ABBREVIATIONS

| | |
|------------------|------------------------------------------------------------------------------------|
| ACFM | Actual cubic feet per minute |
| AFS | AIRS Facility Subsystem |
| AIRS | Aerometric Information Retrieval System |
| AQCR | Air Quality Control Region |
| ASTM | American Society of Testing and Materials |
| BDT | Bone Dry Tons |
| CAB | Compliance Assurance Bureau |
| CFC | Chlorofluorocarbons |
| CFR | Code of Federal Regulations |
| CO | Carbon Monoxide |
| DEQ | Idaho Division of Environmental Quality |
| dscf | Dry Standard Cubic Feet |
| dscfm | Dry Standard Cubic Feet per Minute |
| EF | Emission Factor |
| EPA | United States Environmental Protection Agency |
| EU | Emission Unit |
| gpm | gallons per minute |
| gr | Grain (1 pound = 7000 grains or 454 grams) |
| HAPs | Hazardous Air Pollutants |
| IDAPA | Idaho Administrative Procedures Act |
| km | Kilometer |
| lb(s)/hr | Pound(s) per hour |
| MMBTU | Million British Thermal Unit |
| NESHAP | National Emission Standards for Hazardous Air Pollutants |
| NO ₂ | Nitrogen Dioxide |
| NO _x | Nitrogen Oxides |
| NSPS | New Source Performance Standards |
| O ₃ | Ozone |
| OP | Operating Permit |
| PM | Particulate Matter |
| PM ₁₀ | Particulate Matter with a mean aerodynamic diameter of 10 micrometers (μm) or less |
| ppm | Parts per million |
| PSD | Prevention of Significant Deterioration |
| PTC | Permit to Construct |
| <u>Rules</u> | IDAPA 16.01.01.et. al. (<u>Rules for the Control of Air Pollution in Idaho</u>) |
| SCC | Source Classification Code |
| SIC | Standard Industrial Classification |
| sf | Square Feet |
| scf | standard cubic foot |
| SO ₂ | Sulfur Dioxide |
| TSP | Total Suspended Particulates |
| TVPOP | Title V Pilot Operating Permit |
| T/yr | Tons per year (1 Ton = 2000 lbs) |
| μm | Micrometers |
| VE | Visible Emissions |
| VOC | Volatile Organic Compounds |

1. PURPOSE

The purpose of this memorandum is to set out the legal and factual basis for this draft Tier I Operating Permit (OP) terms and conditions and to satisfy the requirements of IDAPA 16.01.01.300 through 387 (Rules for the Control of Air Pollution in Idaho) (Rules) for issuing Operating Permits.

Idaho Division of Environmental Quality (DEQ) staff have reviewed the information provided by the Amoco Oil Company (Amoco) regarding the operation of their facility in Boise, Idaho. This information was submitted based on the requirements of the Tier I OP in accordance with Section 16.01.01.300 of the Rules.

Based on the information submitted, DEQ has drafted a Tier I OP for Amoco. The permit will be submitted for a public comment period, and, if required, a public hearing will be held. After public comment, a proposed permit will be developed and forwarded to the United States Environmental Protection Agency (EPA) for their review in accordance with IDAPA 16.01.01.366 (Rules).

2. SUMMARY OF EVENTS

On July 17, 1995, the Division of Environmental Quality (DEQ) received the original submittal of a Tier I OP from Amoco Oil Company. The responsible official at that time was S. G. Horsfield, Manager - Salt Lake City Business Unit.

In a letter dated December 10, 1996, Amoco provided written formal notification of the intent to gain its area source status by the statutory compliance date of December 16, 1997.

On November 24, 1998, Amoco submitted an update to the Tier I OP application.

On November 30, 1998, DEQ declared Amoco's November 24, 1998, application update complete.

In a letter dated December 16, 1998, Amoco provided a written supplemental notification to EPA - Region X's Director of Air and Toxics Division, that the facility intends to utilize the screening equation option which is listed in 40 CFR 63.420 to gain federally enforceable limitations on the potential to emit hazardous air pollutants, and thereby remain an area source not subject to the requirements of the Bulk Gasoline Distribution MACT standard.

On January 4, 1999, DEQ received a letter dated December 21, 1998 from Amoco. The letter explained the requested Tier I permit terms and conditions regarding potential to emit HAPs.

In a letter dated January 22, 1999, DEQ notified Amoco that IDAPA 16.01.01.728, which limits the allowable amount of sulfur in distillate fuel oil, was an applicable requirement for the facility under the Tier I permitting program.

On May 12, 1999, DEQ received a Tier I OP application update which was dated May 6, 1999. Jeff J. Carter, Terminal Manager, is the current responsible official for this facility. The update consisted of an updated compliance certification and listing of applicable requirements for the facility.

3. BASES OF THE ANALYSIS

The following documents were relied upon in preparing this memorandum and the Tier I OP:

- (1) Tier I Air Permit Application, dated June 23, 1995 and received June 26, 1995, Amoco Oil Company.
- (2) Tier I Air Permit Application Resubmittal, dated June September 18, 1995 and received September 19, 1995, Amoco Oil Company.
- (3) US EPA TANKS3.1 Storage Tank Emissions Calculation Software, Version 3.1, Emissions Inventory Branch, Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency.
- (4) Compilation of Air Pollutant Emission Factors, AP-42, Fifth Edition, Office of Air Quality Planning and Standards, United States Environmental Protection Agency, January 1995.
- (5) Tier I Operating Permit Application Revision, dated September 22, 1998, and received September 29, 1998.
- (6) New Equipment Leak Emission Factors for Petroleum Refineries, Gasoline Marketing, and Oil & Gas Production Operations, U.S. EPA, February 1995.

4. REGULATORY ANALYSIS - GENERAL FACILITY

4.1 Facility Description

4.1.1 General Process Description

The facility receives petroleum products through the Chevron supply pipeline originating in Salt Lake City, Utah. Petroleum products consisting of various grades of gasoline and distillate fuels are temporarily stored in tanks prior to transfer to mobile carrier tanks for transport and delivery off-site. Distillate fuels can be one of a variety of fuels - kerosene, jet fuel, naphtha, diesel, etc.

The gasoline fuel is stored in any of the tanks equipped with either an external or internal floating roof. The other distillate fuels are stored in fixed roof tanks. Chemical additives are stored in several smaller fixed roof tanks. Chemical additives may be blended with the fuel products at the loading rack as the fuel is transferred from the storage tanks to the mobile transport tanks. The transport (or carrier) tanks are filled with the petroleum products at the loading rack, which is an overhead fill design with a submerged delivery pipe. Each of the carrier tanks are hauled by semi-truck off of the facility property to transfer the fuels at various sites for immediate use.

4.1.2 Facility Classification

The facility is major (IDAPA 16.01.01.008.14.c) for volatile organic compound (VOCs) emissions.

The facility is an area (or nonmajor) source of HAPs emissions with federally enforceable limitations on potential HAPs emissions, by using the approved screening equation in 40 CFR 63.420(a)(1). The facility has also submitted notification to EPA Region 10 to qualify for this facility-wide limitation on potential to emit HAPs.

The facility is classified as an A1 source and is not a designated facility as defined in IDAPA 16.01.01.006.25.

4.1.3 Area Classification

Amoco's bulk gasoline distribution terminal is located in Boise, Idaho, which is in Ada County, in AQCR 64. PSD has not been triggered in the area for any pollutant.

4.1.4 Permitting History

Based on the review of the contents of the source file for Amoco's Boise facility, the following chronological listing has been established for the facility's permitting history.

- On October 18, 1990, DEQ received a PTC application from Amoco for a soil vapor extraction and incineration unit at the Boise facility. The application was declared complete on December 24, 1990. On February 15, 1991, PTC # 0020-0093 was issued to Amoco. This permit was issued for a remediation activity at the facility.
- On March 26, 1993, DEQ received an application from Amoco to modify PTC #0020-0093. PTC #001-00093 was issued on June 7, 1993, which superseded PTC 0020-0093. Only toxic air pollutant emission limitations are included in this PTC. Emissions were allowed to be vented uncontrolled from the soil vapor extraction unit due to the low VOC/TAPs content in the samples taken on site.
- On July 17, 1995, DEQ received Amoco's original Tier I OP application. The responsible official at that time was S. G. Horsfield, Manager - Salt Lake City Business Unit.
- In a letter dated December 10, 1996, Amoco provided written formal notification of the intent to gain its area source status by the statutory compliance date of December 16, 1997. Area source status is required to avoid being subject to the Bulk Gasoline Distribution MACT requirements.
- On March 23, 1998, DEQ received a submittal from Amoco for a Permit to Construct applicability determination request for the facility's proposal to install a control device intended to reduce VOCs and HAPs emissions from the loading rack.
- On November 24, 1998, Amoco submitted an update to the Tier I OP application. The update consisted of:

- 1) A proposed determination of nonapplicability for sulfur content in distillate fuels for Title V purposes;
- 2) Updated compliance certification;
- 3) Updated compliance plan.

The facility's responsible official was James H. Lamanna, Manager, Salt Lake City Business Unit.

- On November 30, 1998, DEQ declared Amoco's November 24, 1998, application update complete.
- In a letter dated December 16, 1998, Amoco provided a written supplemental notification to the EPA - Region 10 Director of Air and Toxics Division, that the facility intends to utilize the screening equation option which is listed in 40 CFR 63.420 to gain federally enforceable limitations on the potential to emit hazardous air pollutants, and thereby remain an area source not subject to the requirements of the Bulk Gasoline Distribution MACT standard. The official written notification (and Administrator approval) is required for the facility to gain this area (or nonmajor) source status.

The December 16, 1998 notification changed several parameters from the initial notification to EPA in 1996. Four domed external floating roof tanks were reevaluated as internal floating roof tanks to bring the total number of internal floating roof storage tanks to five. The E_T value in the screening equation was kept at 0.9999, and the allowable gasoline throughput increased to 121.72 million gallons per year.

- On January 4, 1999, DEQ received a letter dated December 21, 1998 from Amoco. The letter listed the facility's requested Tier I permit terms and conditions to create enforceable limits on the potential to emit HAPs. The document clearly listed the most concise and direct method of limiting the HAPs emissions, and provided a discussion of the regulatory basis.
- In a letter dated January 22, 1999, DEQ notified Amoco that IDAPA 16.01.01.728, which limits the allowable amount of sulfur in distillate fuel oil, was an applicable requirement for the facility under the Tier I permitting program. The determination was based upon the regulation being part of the formally approved State of Idaho State Implementation Plan, and thus a federally enforceable applicable requirement rather than solely a state enforceable applicable requirement.
- On May 12, 1999, DEQ received a submittal from Amoco dated May 6, 1999. The submittal consisted of a Tier I OP application update. The responsible official for the facility and the entirety of the Tier I OP application is currently recognized as Jeff J. Carter, Terminal Manager. No additional permitting actions were discovered in DEQ's files.

4.2 Facility-Wide Applicable Requirements

The facility-wide conditions section reflects the most recent version developed by DEQ. The facility-wide conditions have been updated several times in direct response to EPA Region 10 comments on Tier I OP's that have undergone public comment. Any of the facility-wide conditions which are applicable now or have a reasonable chance of becoming applicable to the facility in the future have been included in Section A of the permit.

4.2.1 Odors

There is a potential for odors to exist at this facility. Gasoline and distillate fuel are known to provide vapors which some find offensive. The facility is located near public and private institutions where a large number of people would have the potential to be affected if odors are present. To demonstrate compliance with the requirements of IDAPA 16.01.01.775-776, the facility will be required to maintain a log of odor complaints received. The validity of each complaint shall be assessed, and the assessment and any corrective action will be recorded in the log. This is the standard facility-wide requirement for the odor regulation. The Tier I permit addresses this requirement in the section titled Facility-Wide Conditions.

4.2.2 Excess Emissions

The facility shall comply with IDAPA 16.01.01.130-136 for excess emissions. The provisions for excess emissions are currently a state only requirement until they are approved as part of Idaho's State Implementation Plan (SIP). The excess emissions requirements in the facility-wide permit section have been updated in response to EPA's comments on the proposed Northwest Pipeline Tier I OP's. The comments requesting that DEQ change the Facility-Wide Conditions were received during the 45 day EPA review period.

4.2.3 Fugitive Dust

Fugitive dust emissions have a potential to be created primarily by vehicle traffic on any paved and unpaved surfaces, and any maintenance activities that create the potential for windblown fugitive dust.

The facility will determine compliance with IDAPA 16.01.01.650-651 by maintaining a log of fugitive dust complaints. The validity of any complaints will be assessed and recorded and any corrective action taken will be recorded in a log and kept on-site.

4.2.4 Opacity

Air pollutant emissions from all sources not specifically regulated in the permit are not to exceed twenty percent (20%) opacity for a period or periods aggregating more than three (3) minutes in any sixty (60) minute period. Visible emissions evaluations in accordance with DEQ's "Procedures Manual for Air Pollution Control", Section II (Evaluation of Visible Emissions Manual) are not required for insignificant activities listed in the permit.

The facility not contain any sources (except for a single building furnace) typically identified with the potential to exhibit opacity subject to the IDAPA 16.01.01.625 Visible Emissions requirement. For the purpose of this permit, permit condition A.6, which specifies the applicable opacity limitation of IDAPA 16.01.01.625, is included. For compliance demonstration purposes, permit condition A.7 has been included. This is necessary because the only emission points known at the facility have VOC emissions from gasoline and distillate fuel (except for the building furnace) and visible emissions are not expected to exceed 20% opacity for those sources. Compliance will be established using the following standard permit condition:

Unless specified elsewhere in this permit, the permittee shall conduct a quarterly facility wide visible emission inspection of potential sources of visible emissions, during daylight hours and under normal operating conditions. If any visible emissions are present from any point of emission the permittee shall take appropriate corrective action to remedy the cause of the visible emissions. If opacity is greater than twenty percent (20%) for a period or periods aggregating more than three (3) minutes in any sixty (60) minute period the permittee shall take all necessary corrective action and report the exceedance in its annual compliance certification and in accordance with IDAPA 16.01.01.130-136. The permittee shall maintain a log of the results of each quarterly visible emission inspection. The log shall, at a minimum, include the date of each inspection and a description of the following: the permittee's assessment of the conditions existing at the time visible emissions are present (if observed) and any corrective action taken in response to the visible emissions.

[IDAPA 16.01.01.322.06, .07, .08, 5/1/94]

The draft permit originally distributed to the facility and the Boise Regional Office reflected no compliance demonstration with the 20% opacity limitation contained in permit condition A.6. Permit condition A.7 has been included as a result of comments stating that quarterly walk-arounds are a minimum compliance demonstration requirement.

4.2.5 Recordkeeping Requirements

Standard record keeping requirements of IDAPA 16.01.01.322.07 requires:

The date, place (as defined in the Tier I operating permit) and time of sampling or measurements;

- ▶ The date(s) analyses were performed;
- ▶ The company or entity that performed the analyses;
- ▶ The analytical techniques or methods used;
- ▶ The results of such analyses; and
- ▶ The operating conditions existing at the time of sampling or measurement.

Records required by the permit will be maintained for a minimum of five (5) years in an appropriate location and made available to DEQ representatives upon request in accordance with IDAPA 16.01.01.322.07(a) and 40 CFR 70.6(a)(3)(ii)(B). The records may be in electronic or hard copy form.

4.2.6 Monitoring Records

All monitoring records and support information generated as a result of the permit are required to be maintained for at least five (5) years from the date of monitoring, sample measurement, report or application in accordance with IDAPA 16.01.01.322.07(c) and 40 CFR 70.6(a)(3)(ii)(B).

4.2.7 Reporting Requirements

The permittee must submit reports of any required monitoring at least once per every six-month period. For the purpose of IDAPA 16.01.01.322.08(c), the permittee may submit a summary report of all required monitoring and recordkeeping except for cases where the permittee is reporting a deviation from the permit requirement(s). For cases where the permittee must report a deviation that qualifies as an excess emission, the provisions of IDAPA 16.01.01.130-136 must be followed.

Deviations from permit conditions other than excess emission events may be submitted with the semiannual report, unless the permit specifically requires another time frame. For these non-excess emission events the permittee must submit a description of the probable cause of each event and a description of the methods used to control or minimize each event.

4.2.8 Testing Requirements

Testing requirements will be determined through the methods allowed by 16.01.01.157, which may allow the facility and the Department the ability to grant approval for alternative testing methods. There is no testing required by the permit other than the testing for sulfur content in distillate fuel oil, which is specified in Section B - Other Facility-Wide Conditions.

4.3 Hazardous Air Pollutants (HAPs)

HAPs are present in the various petroleum products stored and transferred at the facility. HAPs are emitted due to the volatilization of the liquid HAPs while the products are stored in tanks, transferred through piping, and loaded into carrier tanks (tanker trucks). The largest portion of the HAPs are emitted during the transfer of petroleum products from storage tanks to the mobile carrier tanks through the loading rack system.

HAPs emissions are mainly a result of gasoline service. Gasoline has a significantly higher HAPs content in both species and amount in comparison to distillate fuels oils (such as diesel fuels, jet fuel, etc.). The volatility of gasoline far exceeds that of distillate fuel oils, and thus the actual and potential air emissions are orders of magnitude larger for gasoline products. The major portion of HAPs emissions are from the loading rack operation where distillate fuel oil or gasoline are pumped into waiting carrier tanks for off-site delivery. Additives can be blended with the fuel at the loading rack just prior to the filling of the carrier tank.

Emission estimates were provided by Amoco with the Tier I OP application. Emissions of HAPs and VOCs were estimated for gasoline and distillate fuel oil as the petroleum products handled by the facility. The HAPs emissions are based upon the chemical makeup of the petroleum products distributed by the facility. The chemical composition of the petroleum products presented in Amoco's application is intended to be representative of the average-or typical-composition of the materials. The chemical composition and thus the individual HAPs species of emissions varies somewhat by changing seasons and product specification. The Tier I OP does not place any requirement on the specific chemical composition of the fuels distributed at this facility.

EPA AP-42 emission factors were utilized for emission estimates from the loading rack. The EPA software program titled TANKS 3.1 was used to estimate the emissions of VOCs and HAPs. The TANKS 3.1 software uses AP-42 emission estimation equations and takes into account site specific information such as tank design, product throughput, product physical characteristics, and climatic data, all of which affect emission rates. EPA's Protocol for Equipment Leak Emission Estimates were used for fugitive emissions from equipment at the marketing terminals. The emissions of VOCs from this equipment were only estimated to be 0.225 tons per year. HAPs emissions are negligible at that VOC emission level.

4.4 Alternative Operating Scenarios

No alternative operating scenarios were proposed in the application.

4.5 Emissions Trading

No emissions trading scenario was requested in the permit application.

4.6 Excess Emissions

Amoco has not identified any circumstances for startup, shutdown, or maintenance that would create excess emissions. This permitting action does not include any review and incorporation of excess emissions plans in the permit.

Excess emissions are defined by IDAPA 16.01.01.006.35 as:

Emissions of any regulated air pollutant exceeding an applicable emissions standard established for any facility, source or emissions unit by statute, regulation, rule, permit, or order.

[4-23-99]

IDAPA 16.01.01.130-136 address the applicable regulations for excess emissions procedures. Section A. - Facility-wide Conditions of the permit incorporates these requirements.

4.7 Affected States Notice and Review

IDAPA 16.01.01.008.01, defines *affected states* as:

"All States:

- a. *Whose air quality may be affected by the emissions of the Tier I source and that are contiguous to Idaho; or*
- b. *That are within fifty (50) miles of the Tier I source."*

Affected states are offered the opportunity to formally be notified and receive a copy of the public comment package as required by IDAPA 16.01.01.364.02, and are provided the opportunity to comment on the draft Tier I OP.

This facility is located a distance which of less than 50 miles from the State of Oregon. The Oregon DEQ will receive a copy of the public comment package.

4.8 Non-Applicable Requirements

Non-applicable requirements that are intended to qualify for protection under the general permit shield must meet each of the following requirements, as listed in IDAPA 16.01.01.325.01(b):

IDAPA 16.01.01.325.01(b).

Non-applicable requirements. For a requirement to be a non-applicable requirement, all of the following criteria must be met:

- i. The permittee must have provided the information required by Subsection 314.08.b. in the application.*
- ii. The requirement must be specifically identified in the Tier I operating permit as a non-applicable requirement.*
- iii. The requirement must have been determined by the Department, in writing and in acting on the permit application or revision, to not be applicable to the Tier I source.*
- iv. Tier I operating permit must include the Department's determination or a concise summary thereof.*

A summary of the most important regulatory requirements that have been reviewed by Amoco and determined not to apply to the emission units or the facility as a whole includes:

- 4.8.1 New Source Performance Standards - Subpart K, Ka (Storage Vessels for Petroleum Liquids) and Kb (Storage Vessels for Volatile Organic Liquids (Including Petroleum Liquids)).

| NSPS Subpart | Construction, Reconstruction, or Modification Date |
|---------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| K | 40,000 to 65,000 gallons capacity - March 8, 1974 to May 19, 1978; and > 65,000 gallons capacity - June 11, 1973 to May 19, 1978 |
| Ka | > 40,000 gallons capacity - after May 18, 1978 |
| Kb | > 40 cubic meters - after July 23, 1984 |

CONSTRUCTION DATES AND SIZES OF TANKS

| Tank ID # | Date of Construction | Storage Capacity (Gallons) | Tank Type | Product Type Stored |
|------------------|-----------------------------|-----------------------------------|------------------------------|-------------------------------------------------------------------------------------|
| TK 2001 | 1950 | 861,000 | Domed External Floating Roof | Gasoline or Any Distillate |
| TK 2002 | 1950 | 1,482,600 | Domed External Floating Roof | Gasoline or Any Distillate |
| TK 2003 | 1950 | 766,500 | Internal Floating Roof | Gasoline or Any Distillate |
| TK 2004 | 1950 | 630,000 | Fixed Roof | Any Distillate |
| TK 2005 | 1950 | 42,306 | Fixed Roof | Transmix which consists of various grades of distillates and gasoline |
| TK 2006 | 1952 | 2,772,000 | Domed External Floating Roof | Petroleum Products including Gasoline |
| TK 2007 | 1952 | 2,236,916 | Fixed Roof | Petroleum Products |
| TK 2008 | 1954 | 1,768,200 | Domed External Floating Roof | Petroleum Products including Gasoline |
| TK 2009 | Not listed | 15,000 | Fixed Roof | Recoverable Hydrocarbons - Consisting of Gasoline, and/or Distillates, and/or Water |
| TK 2010 | Not listed | 4,000 | Fixed Roof | Chemical Additives |
| TK 2011 | Not listed | 4,000 | Fixed Roof | Chemical Additives |
| TK 2012 | Not listed | 1,000 | Fixed Roof | Chemical Additives |
| TK 2013 | Not listed | 2,000 | Fixed Roof | Chemical Additives |
| TK 2014 | Not listed | 6,000 | Fixed Roof | Chemical Additives |
| TK 2015 | Not listed | 300 | Fixed Roof | Chemical Additives |
| TK 2016 | Not listed | 3,000 | Fixed Roof | Chemical Additives |

In order for the NSPS subparts to be non-applicable, the individual storage tanks must not have been initially constructed, undergone a *modification* as defined by 40 CFR 60.14, *reconstruction* as defined by 40 CFR 60.15. Amoco has not identified that either a modification or reconstruction of the storage tanks has occurred since the initial construction in 1950. The basis for this determination must be made using the definitions in the New Source Performance Standards. Therefore, it is the Department's interpretation that the emissions units have never undergone a modification or reconstruction that would make any of them subject to any standard or reporting requirement for any New Source Performance Standards as listed in 40 CFR Part 60.

4.8.2 Clean Air Act Section 112(r) Risk Management Plan

On January 6, 1998, the EPA published the final rule for 40 CFR Part 68 - List of Regulated Substances and Thresholds for Accidental Release Prevention in the federal register. Gasoline has been exempted from the requirement of submitting a formal risk management plan. The summary of this action can be found on the EPA website at the following site address:

<http://www.epa.gov/fedrgstr/EPA-AIR/1998/January/Day-06/a267.htm>

This exemption was contained in the January 6, 1998 Volume 63, Number 3 of the Federal Register. The risk management plan applicability threshold listed in 40 CFR 68.115(b) was modified to exempt flammable substances in gasoline used as fuel for internal combustion engines. Thus, if the substances are exempted from any applicability determination, it is not subject to the risk management plan reporting requirement. The basis for this exemption is laid out as follows:

40 CFR 68 - Subpart F - Regulated Substances for Accidental Release Prevention establishes the list of the substances subject to the 112(r) Risk Management Plan requirements. Section 40 CFR 60.115(b) states:

"For the purposes of determining whether more than a threshold quantity of a regulated substance is present at a stationary source, the following exemptions apply:"

"40 CFR 68.115(b)(2)(ii) Gasoline. Regulated substances in gasoline, when in distribution or related storage for use as fuel for internal combustion engines, need not be considered when determining whether more than a threshold quantity is present at a stationary source."

Section A. of the permit contains permit condition A.13 to address the possibility of the Accidental Release Plan becoming an applicable requirement for this facility.

4.9 Permit to Construct #001-00093

PTC #001-00093 was issued on June 7, 1993 to Amoco. The PTC contains an emission limitation on benzene of 1.50 lb/day (or 21 ppm). Emission controls on the stack emissions are not required when emissions of benzene are below the 21 ppm level.

The requirements of the PTC were not incorporated into the Tier I OP. The basis for excluding the PTC stems from IDAPA 16.01.01.008.03(b), addressing the definition of an applicable requirement:

"Any term or condition of any permit to construct issued by the Department pursuant to Sections 200 through 223 or by EPA pursuant to 42 U.S.C. Sections 7401 through 7515; provided that terms or conditions relevant only to toxic air pollutants are not applicable requirements."

This exclusion of TAPs being an applicable requirement for Title V purposes is mirrored in Section 9 - Permit Authority - of the Tier I OP cover page. The section of the text that *and the Permittee elects not to incorporate those terms and conditions into this operating permit.*

See Appendix A to review a copy of PTC #001-00093, issued June 7, 1993. Based upon the material listed above, Tier I OP does not incorporate any terms from the PTC. In the Tier I application update, dated May 6, 1999, and received May 12, 1999, the permittee listed the soil vapor extraction unit (referred to as "remediation activities") as an insignificant activity. Although the information presented to DEQ by the permittee and the emission information reflected in the PTC qualify for insignificant activity levels, it is the interpretation of DEQ staff that the remediation activities contained in PTC #001-00093 do not qualify as an insignificant activity due to the existence of that PTC. The Tier I OP will not include the remediation activities beyond the applicable conditions in Section A. - Facility-wide Conditions.

5.0 OTHER FACILITY-WIDE CONDITIONS

5.1 Distillate Fuel Sulfur Content

5.1.1 Emission Description

Sulfur content in fuels is limited by regulation as a method of reducing sulfur dioxide (SO₂) emissions resulting from combustion of the fuels in internal combustion engines.

5.1.2 Applicable Requirement

IDAPA 16.01.01.725 - 728 regulates the sulfur content of fuels distributed and used in Idaho. The text of the regulations follows:

725. RULES FOR SULFUR CONTENT OF FUELS.

The purpose of Sections 725 through 729 is to prevent excessive ground level concentrations of sulfur dioxide from fuel burning sources in Idaho. The reference test method for measuring fuel sulfur content shall be ASTM method, D129-95 Standard Test for Sulfur in Petroleum Products (General Bomb Method) or such comparable and equivalent method approved in accordance with Subsection 157.02.d. Test methods and procedures shall comply with Section 157. (4-23-99)T

726. DEFINITIONS AS USED IN SECTIONS 727 THROUGH 729.

01. ASTM. American Society for Testing and Materials.
02. Distillate Fuel Oil. Any oil meeting the specifications of ASTM Grade 1 or Grade 2 fuel oils.

03. *Residual Fuel Oil. Any oil meeting the specifications of ASTM Grade 4, Grade 5 and Grade 6 fuel oils.*

727. *RESIDUAL FUEL OILS.*

01. *Standards for 1973. After January, 1973, no person shall sell, distribute, use or make available for use, any residual fuel oil containing more than two and one-half percent (2.5%) sulfur by weight.*
02. *Standards Beginning 1974. After January, 1974, no person shall sell, distribute, use or make available for use, any residual fuel oil containing more than one and three-fourths percent (1.75%) sulfur by weight.*

728. *DISTILLATE FUEL OIL.*

No person shall sell, distribute, use or make available for use, any distillate fuel oil containing more than the following percentages of sulfur:

01. *ASTM Grade 1. ASTM Grade 1 fuel oil - 0.3 percent by weight*
02. *ASTM Grade 2. ASTM Grade 2 fuel oil - 0.5 percent by weight*

The Tier I OP application did not reflect distribution of residual fuel oils. Consequently, the permit does not reflect any applicable requirement or compliance demonstration requirements for IDAPA 16.01.01.727, which addresses the distribution of fuels.

The permit does not specifically include the definitions listed in the regulation. The limitations are specified in IDAPA 16.01.01.728, and are included in the Tier I OP as permit condition B.1, in the section titled "Other Facility-Wide Conditions."

5.1.3 Compliance Determination

The permit specifies an option for establishing compliance with the sulfur limitation for each shipment of distillate fuel oil that the facility receives.

If the permittee wishes to sample and analyze the fuel themselves they can select the option specified in Tier I OP conditions B.2.1 and B.2.2, which state:

B.2.1

The reference test method for measuring fuel sulfur content shall be ASTM method, D129-95 Standard Test for Sulfur in Petroleum Products (General Bomb Method) or such comparable and equivalent method approved in accordance with Subsection 157.02.d. Test methods and procedures shall comply with Section 157.

B.2.2

The results of each test performed shall be recorded in a log. The supporting analysis information shall also be kept on-site.

Or if the permittee chooses to obtain the sulfur content information from the supplier of the fuel, they demonstrate compliance using Tier I OP condition B.2.3, which states that the permittee shall:

Obtain documentation of the sulfur content analysis of each shipment of distillate fuel from the refinery that produced the fuel. The documentation shall clearly state the sulfur content in weight percent of sulfur present in the fuel sample and shall reference the method of analysis used to determine the sulfur content in the fuel oil.

5.1.4 Emission Limits and Standards Authority

The authority for the fuel sulfur content limitations and testing requirements is IDAPA 16.01.01.725, 726.01, 726.02, and 728. The date of effectiveness for these regulations is April 23, 1999 for IDAPA 16.01.01.725, and May 1, 1994 for each of the other regulations cited above.

For information purposes, the distillate fuel sulfur content requirement differs from the other federal regulations that impose requirements on the chemical composition and physical properties of fuels. The distillate fuel sulfur content limitations are part of the approved State of Idaho State Implementation Plan and are listed in the air quality regulations in IDAPA 16.01.01.725-728. Thus, these sulfur limitations impose a specific applicable requirement for the Title V program, whereas the other fuel regulations

NEED THE 40 CFR WHATEVER CODE HERE FOR THE REGULATION OF FUELS.

The requirement to actually provide a compliance monitoring and certification method that reflects the fuel's actual

5.1.5 Monitoring Requirements

The permittee is required to monitor the sulfur content of distillate fuel oil for each shipment received in the units of weight percent sulfur.

5.1.6 Testing Requirements

If the facility chooses the option of testing the distillate fuel oil at the facility, they must utilize either the test method for sulfur content specified by IDAPA 16.01.01.725 or an alternative method approved by DEQ through the methods specified in IDAPA 16.01.01.157 which addresses test methods and procedures.

IDAPA 16.01.01.725 specifies the test method for a fuel's sulfur content as ASTM method, D129-95 Standard Test for Sulfur in Petroleum Products (General Bomb Method) or such comparable and equivalent method approved in accordance with Subsection 157.02(d). Test methods and procedures must comply with Section 157 of the Rules.

5.1.7 Recordkeeping Requirements

The permittee is required to keep the results (a summary of the test analysis) in a log if they choose to perform their own sulfur content testing; or if the sulfur content documentation is received from the refinery who delivered the distillate fuel, test report information - which is considered supporting information - must be kept on site by Amoco.

5.1.8 Reporting Requirements

The permittee must submit certified semiannual reports of all required monitoring listed above in Section 5.1.5. Deviations are to be noted by the permittee and the corrective action(s) taken must be included in the semiannual report.

All monitoring records and support information must be retained for a period of at least five (5) years from the date of the monitoring sample, measurement, report or application.

5.2. FACILITY-WIDE POTENTIAL TO EMIT

The facility has established its potential to emit HAPs by utilizing the screening equation found in the NESHAPS regulation for Bulk Gasoline Distribution facilities and Pipeline Breakout Stations. This requirement is often referred to as the Gasoline Distribution MACT. This equation is found in 40 CFR 63.420(a)(1) and is a self implementing method of limiting potential to emit.

5.2.1 Emission Description

Hazardous air pollutants are emitted from the storage tanks, the loading rack operation, and piping (flanges and valves, etc.).

5.2.2 Applicable Requirement

40 CFR 63.420(a) identifies the applicability of the NESHAP requirement. This NESHAP (or MACT) is applied to any facility with the potential to emit HAPs in the amount of 10 tons per year of any single HAP or 25 tons per year of all aggregated HAPs emissions.

Amoco's facility is a bulk gasoline distribution terminal and 40 CFR 63.420(a)(1) lists the appropriate equation for maintaining the facility's area source status. The owner or operator must document and record to the Administrator's (EPA - Region 10) satisfaction that the facility qualifies for the area source designation. Please refer to Appendix B to review a copy of 40 CFR 63 - Subpart R (also cited as 40 CFR 63.420-63.429).

Facilities subject to this MACT standard would have required the permittee to comply with standards on gasoline storage tanks of a specified size; standards for loading racks, standards for cargo tanks (or "tank truck"); and an equipment leak inspection program. Associated monitoring, recordkeeping, reporting, and emission control testing would also be applicable.

5.2.3 Compliance Determination

As can be seen through a review of Amoco's notification materials to EPA Region 10, Amoco has chosen to allow for the maximum amount of operational flexibility in choosing the enforceable parameters of the screening equation. The parameters selected establish an E_T value of 0.9999. This is primarily dependent upon the daily gasoline throughput limitation; distribution of fuel with a content of less than 7.6 percent of methyl tert butyl ether; the number of tanks of a particular design (internal versus external floating roof); the number of fugitive emission components used for the gasoline distribution system; an uncontrolled loading rack emission factor; and emissions from miscellaneous activities not related to gasoline service.

This level of emissions (as related to a value of E_T greater than 0.50 but less than 1.0 requires the permittee to comply with 40 CFR 63.420(c)(1) and 40 CFR 63.420(c)(2), which in summary require that the permittee not exceed any of the parameters that were submitted and approved by the Administrator, EPA Region 10, during any 30 day rolling month period, and comply with the reporting and recordkeeping requirements specified by 40 CFR 63.428(i).

5.2.4 Emission Limits and Standards Authority

40 CFR 63.420 establishes the authority for this requirement. By complying with the screening equation parameters, notification, recordkeeping and reporting requirements, Amoco's Boise facility is considered an area source for the Bulk Gasoline Distribution MACT. This method effectively limits emissions of HAPs below the 10 T/yr of any individual HAP and 25 T/yr of all aggregated HAPs emissions.

5.2.5 Monitoring Requirements

The permittee must monitor the information on the parameters for the screening equation specified by 40 CFR 63.420(a)(1). The equation was not included in the permit in order to allow the permittee to continue to comply with the appropriate equation in the event EPA amends any portion of the equation. The permit would not need to be amended to incorporate the change. (Please refer to Appendix B to review the screening equation in 40 CFR 63.420(a)(1)).

5.2.6 Testing Requirements

There are no testing requirements that apply for this regulation unless the facility were actually subject to this MACT standard.

5.2.7 Recordkeeping Requirements

To use the initial notification requirement to for the screening equation option, the permittee was required to "document the methods, procedures, and assumptions supporting the calculation in 40 CFR 63.420(c)."

40 CFR 63.428(i)(2) requires the permittee to maintain documentation the parameters established in the screening equation have not been exceeded, and thus that the facility still qualifies as an area source of HAPs emissions.

In the event the permittee wishes to change one or more screening equation parameters, the increase or decrease in HAPs emissions must be recorded.

5.2.8 Reporting Requirements

The permittee was required to report the information listed above concerning the initial notification to EPA Region 10 within 30 days following December 18, 1996.

40 CFR 63.428(i)(3) specifies an annual reporting requirement for the permittee to verify to EPA Region 10 that the screening equation parameters, or facility parameters, have not been exceeded. When altering a parameter, the permittee must provide a written request from the Administrator, EPA Region 10, for approval. The approval must be granted prior to exceeding any parameter originally approved.

The permittee must submit certified semiannual reports of all required monitoring listed above in Section 5.2.5. Deviations are to be noted by the permittee and the corrective action(s) taken must be included in the semiannual report.

All monitoring records and support information must be retained for a period of at least five (5) years from the date of the monitoring sample, measurement, report or application.

6. INSIGNIFICANT ACTIVITIES

The following activities/sources have been declared conditionally exempt based upon size, production rate, or potential to emit regulated air pollutants:

| Emissions Unit or Process | Storage Capacity (Gallons) | Potential Emissions | Insignificant Activities Citation | Insignificant Activities Description |
|---------------------------|----------------------------|-----------------------------------------|-----------------------------------|---------------------------------------------------------------------------------------------------------------|
| TK 2001 | Not Applicable | 1.47 T/yr of VOCs and 0.22 T/yr of HAPs | (30) | Applicable Limits: Potential emissions of less than 4 tons per year VOCs and less than 1 ton per year any HAP |
| TK 2002 | Not Applicable | 0.95 T/yr of VOCs and 0.13 T/yr of HAPs | (30) | Applicable Limits: Potential emissions of less than 4 tons per year VOCs and less than 1 ton per year any HAP |
| TK 2003 | Not Applicable | 1.54 T/yr of VOCs and 0.22 T/yr of HAPs | (30) | Applicable Limits: Potential emissions of less than 4 tons per year VOCs and less than 1 ton per year any HAP |
| TK 2004 | Not Applicable | 0.61 T/yr of VOCs and 0.17 T/yr of HAPs | (30) | Applicable Limits: Potential emissions of less than 4 tons per year VOCs and less than 1 ton per year any HAP |
| TK 2005 | Not Applicable | 1.54 T/yr of VOCs and 0.08 T/yr of HAPs | (30) | Applicable Limits: Potential emissions of less than 4 tons per year VOCs and less than 1 ton per year any HAP |
| TK 2006 | Not Applicable | 0.95 T/yr of VOCs and 0.12 T/yr of HAPs | (30) | Applicable Limits: Potential emissions of less than 4 tons per year VOCs and less than 1 ton per year any HAP |

| Emissions Unit or Process | Storage Capacity (Gallons) | Potential Emissions | Insignificant Activities Citation | Insignificant Activities Description |
|---------------------------|----------------------------|-------------------------------------------------|-----------------------------------|---------------------------------------------------------------------------------------------------------------|
| TK 2007 | Not Applicable | 1.40 T/yr of VOCs and 0.39 T/yr of HAPs | (30) | Applicable Limits: Potential emissions of less than 4 tons per year VOCs and less than 1 ton per year any HAP |
| TK 2008 | Not Applicable | 1.80 T/yr of VOCs and 0.20 T/yr of HAPs | (30) | Applicable Limits: Potential emissions of less than 4 tons per year VOCs and less than 1 ton per year any HAP |
| TK 2009 | 15,000 | 0.15 T/yr of VOCs and 0.01 T/yr of HAPs | (30) | Applicable Limits: Potential emissions of less than 4 tons per year VOCs and less than 1 ton per year any HAP |
| TK 2010 | 4,000 | Not Applicable for this Insignificance Criteria | (3) | VOC storage tanks less than 10,000 gallons capacity and vapor pressure < 80 mm Hg at 21 degrees Celsius |
| TK 2011 | 4,000 | Not Applicable for this Insignificance Criteria | (3) | VOC storage tanks less than 10,000 gallons capacity and vapor pressure < 80 mm Hg at 21 degrees Celsius |
| TK 2012 | 1,000 | Not Applicable for this Insignificance Criteria | (3) | VOC storage tanks less than 10,000 gallons capacity and vapor pressure < 80 mm Hg at 21 degrees Celsius |
| TK 2013 | 2,000 | Not Applicable for this Insignificance Criteria | (3) | VOC storage tanks less than 10,000 gallons capacity and vapor pressure < 80 mm Hg at 21 degrees Celsius |
| TK 2014 | 6,000 | Not Applicable for this Insignificance Criteria | (3) | VOC storage tanks less than 10,000 gallons capacity and vapor pressure < 80 mm Hg at 21 degrees Celsius |
| TK 2015 | 300 | Not Applicable for this Insignificance Criteria | (3) | VOC storage tanks less than 10,000 gallons capacity and vapor pressure < 80 mm Hg at 21 degrees Celsius |
| TK 2016 | 3,000 | Not Applicable for this Insignificance Criteria | (3) | VOC storage tanks less than 10,000 gallons capacity and vapor pressure < 80 mm Hg at 21 degrees Celsius |

Other Insignificant Activities

| Emissions Unit or Process | Potential Emissions | Insignificant Activities - IDAPA 16.01.01.317.01(b)(i) | Insignificant Activities Description |
|----------------------------------------------------|------------------------------------------|--------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| Loading Rack - Distillate Fuel Loading | 0.77 T/yr VOCs* and 0.13 T/yr HAPs | (30) | Applicable Limits: Potential emissions of less than 4 tons per year VOCs and less than 1 ton per year any individual HAP |
| Fugitive Emissions - Valves, Flanges, Piping, etc. | 0.225 T/yr VOCs and 0.01 T/yr HAPs | (30) | Applicable Limits: Potential emissions of less than 4 tons per year VOCs and less than 1 ton per year any individual HAP |
| Facility Maintenance Activities | Not Listed in the Application | (30) | Applicable Limits: Potential emissions of less than 4 tons per year VOCs and less than 1 ton per year any individual HAP |
| Building Furnace | Not Listed in the Application | (30) | Applicable Limits: Potential emissions of less than 4 tons per year VOCs and less than 1 ton per year any individual HAP |

* From Attachment A-5 of the Sept. 22, 1998 Application

The facility maintenance activities, fugitive emissions, and the distillate fuel loading operation at the loading rack must be below the 4 ton/yr of VOCs and 1 ton/yr of single HAP emission potential to emit levels specified by IDAPA 16.01.01.317(b)(i)(30).

There are no applicable requirements for these insignificant activities. Therefore, no specific permit terms or conditions exist in the permit for these sources/activities. They are listed in the permit to be afforded a permit shield.

7. COMPLIANCE PLAN AND COMPLIANCE CERTIFICATIONS

The permittee is required to submit a periodic compliance certification to the appropriate DEQ regional office (the Boise Regional Office in this case) and EPA Region 10 for all emission units at the facility. This is required by IDAPA 16.01.01.322.11 to certify whether compliance was achieved during the reporting period—which will be annually for Amoco's Boise facility, unless an applicable requirement is identified that will require submittal of compliance certifications more frequently.

8. REGISTRATION FEES

IDAPA 16.01.01.525 requirements for registration of pollutants and registration fees apply because the facility is a *major facility* as defined by IDAPA 16.01.01.008.14 for the emissions of volatile organic compounds (VOCs) in excess of 100 T/yr.

Registration of pollutants and payment of registration fees are determined by the current regulation for applicability and calculation of fees. Fees regulations are subject to changes through rulemaking. The facility currently has the option of paying registration fees according to one or more of the following bases (rulemaking effective March 19, 1999):

- 1) Actual annual emissions;
- 2) Estimated actual annual emissions based on actual operating hours, production rates, in-place control equipment, and types of materials processed, stored, or combusted during the preceding calendar year; and/or,
- 3) Allowable emissions based on permit limitations.

9. RECOMMENDATION

Based on the Tier I OP application and review of the federal and state rules, Technical Services Office staff recommends that DEQ issue a draft Tier I OP to Amoco Oil Company for their facility in Boise, Idaho.

[illegible]

APPENDIX A

PERMIT TO CONSTRUCT #001-00093, ISSUED JUNE 7, 1993



IDAHO DEPARTMENT
OF HEALTH AND WELFARE
DIVISION OF
ENVIRONMENTAL QUALITY

1410 North Hilton, Statehouse Mail, Boise, ID 83720-9000, (208) 334-0502

Cecil D. Andrus, Governor

June 7, 1993

CERTIFIED MAIL: # P 111 446 910

Jeffery J. Carter
Terminal Manager
AMOCO Oil Company
321 N. Curtis Road
Boise, Idaho 83707

Re: AMOCO Oil Company (Boise) P-930431 (Soil Vapor Extraction
Modification to PTC No. 0020-0093)

Dear Mr. Carter:

On March 26, 1993 the Division of Environmental Quality (DEQ) received your application to modify Permit to Construct (PTC) No. 0020-0093. Additional information was received on March 31, 1993. Based on that application and additional information, DEQ finds that the proposed project meets the provisions of IDAPA 16.01.01012 (Rules and Regulations for the Control of Air Pollution in Idaho). Enclosed is PTC No. 001-00093 which supersedes PTC No. 0020-0093.

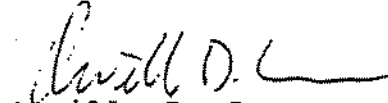
~~Please pay particular attention to the reporting requirements contained in Paragraph E, of the General Provisions section of the permit. This information is needed to properly track the progress of the permit. Please refer to the appropriate permit number when submitting reports required in the reporting requirements Section of the permit.~~

You, as well as any other entity, may have the right to appeal this final agency action pursuant to the Idaho Department of Health and Welfare Rules and Regulations, Title 5, Chapter 3, "Rules Governing Contested Case Proceedings and Declaratory Rulings," by filing a petition with the Hearings Coordinator, Department of Health and Welfare, Administrative Procedures Section, 450 West State Street - 10th Floor, Boise, Idaho 83720-5450, within thirty (30) days of the date of this decision.

Mr. Carter
June 7, 1993
Page 2

If you have any questions regarding the terms or conditions of the enclosed permit, then please contact Mr. Martin Bauer, Chief, Construction Permits Bureau, at (208) 334-5898.

Sincerely,



Orville D. Green
Assistant Administrator
Permits and Enforcement

ODG/GK/kk:AMOCO.PL

Enclosure

cc: G. Kunstek
P. Rayne, AFS
L. Koenig, SWIRO
Source File
COF 1.1



June 7, 1993

M E M O R A N D U M

TO: Orville D. Green, Assistant Administrator
Permits and Enforcement

FROM: Martin Bauer, Chief *M. Bauer*
Construction Permits Bureau

SUBJECT: AMOCO Oil Company (Boise) P-930431 (Soil Vapor Extraction
Modification of PTC No. 0020-0093 to 001-00093)

Project Description

The project shall continue to remediate petroleum contaminated soil and or rock. This modification is requested to remove the VOC control unit when the emissions are small.

Discussion

On March 26, 1993 the Division of Environmental Quality (DEQ) received an application to modify Permit to Construct (PTC) No. 0020-0093. Additional information was received on March 31, 1993.

Recommendations

Based on the review of the Permit to Construct application, and on applicable state and federal regulations concerning the construction of a pollution source, the staff recommend that AMOCO Oil Company be issued a Permit to Construct for removing VOC controls when emissions are small. The staff also recommend that since the source does not fall under the Prevention of Significant Deterioration requirements, there is no need to provide for a public comment on this subject.

MB/GK/ksk:AMOCO.MM

STATE OF IDAHO
PERMIT TO CONSTRUCT AN
AIR POLLUTION EMITTING SOURCE

PERM NUMBER

001 - 00093

AQCR

064

CLASS

A2

SIC

4613

ZONE

11

UTM COORDINATE (km)

560 3 4828 1

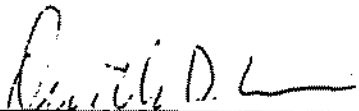
1. PERMITTEE
AMOCO Oil Company
2. PROJECT
Soil Venting and Vapor Incineration
3. MAILING ADDRESS
321 N. Curtis Road
- CITY
Boise
- STATE
Idaho
- ZIP CODE
83707
4. SITE LOCATION COUNTY
321 N. Curtis Road
- NO. OF FULL TIME EMPLOYEES
2
- PROPERTY AREA AT SITE (Acreage)
7.5
5. PERSON TO CONTACT
Jeffery J. Carter
- TITLE
Terminal Supervisor
- TELEPHONE NUMBER
(208) 375-1252
6. EXACT PLANT LOCATION
321 N. Curtis Road, Boise Idaho
7. GENERAL NATURE OF BUSINESS AND KINDS OF PRODUCTS
Petroleum Product Storage
8. GENERAL CONDITIONS

This permit is issued according to the Rules and Regulations for the Control of Air Pollution in Idaho, Section 16.01.01012, and pertains only to emissions of air contaminants which are regulated by the State of Idaho and to the sources specifically allowed to be constructed by this permit.

This permit (a) does not affect the title of the premises upon which the equipment is to be located, (b) does not release the permittee from any liability for any loss due to damage to person or property caused by, resulting from, or arising out of the design, installation, maintenance, or operation of the proposed equipment, (c) does not release the permittee from compliance with other applicable federal, state, tribal or local laws, regulations, or ordinances, (d) in no manner implies or suggests that the Department of Health and Welfare, or its officers, agents, or employees, assumes any liability, directly or indirectly, for any loss due to damage to person or property caused by, resulting from, or arising out of design, installation, maintenance, or operation of the proposed equipment.

This permit is not transferable to another person, place, piece or set of equipment. This permit will expire if construction has not begun within two years of its issue date or if construction is suspended for one year.

THIS PERMIT HAS BEEN GRANTED ON THE BASIS OF DESIGN INFORMATION PRESENTED WITH ITS APPLICATION. CHANGES OF DESIGN OR EQUIPMENT THAT RESULT IN ANY CHANGE IN THE NATURE OR AMOUNT OF EMISSIONS MUST BE APPROVED IN ADVANCE BY THE DEPARTMENT.



ASSISTANT ADMINISTRATOR
PERMITS AND ENFORCEMENT

DATE: June 7, 1993

| PERMIT TO CONSTRUCT | PERMIT NUMBER |
|---------------------------------------------------------------|---------------|
| PERMITTEE, PROJECT, AND LOCATION | |
| AMOCO Oil Company Boise Marketing Terminal Boise, Idaho | 001 - 00093 |
| SOURCE | |
| Soil Vapor Extraction of Petroleum Hydrocarbons | |

1. SOURCE DESCRIPTION

1.1 Process Description

This project will remediate petroleum contaminated soil and or bedrock within the vadose zone above the ground water table. The system will remove the petroleum contaminants from the vadose zone by pulling air through the ground using a vacuum pump(s). This permit is valid for vapor extraction of petroleum contaminated bedrock or soil only. Petroleum is defined as gasoline, diesel, kerosene, naphtha and/or jet fuel.

1.2 Controls

Air pollution emission controls are not required for this soil vapor extraction unit when the uncontrolled benzene concentration in the exit stack is less than 21 ppm.

2. EMISSION LIMITS

2.1 Benzene Emission Rate

~~Benzene emissions to the atmosphere shall not exceed the calculated~~
maximum allowable rate of 1.50 pounds per day (1.50 lb/day). The benzene concentration in the exit stack shall not exceed 21 ppm.

3. OPERATING REQUIREMENTS

3.1 Operation Permitted Under the Following Conditions

Operation of the soil vapor extraction system is permitted under the following conditions:

- 3.1.1 The minimum horizontal distance from the benzene emission point (stack) to the property line shall be no less than one hundred and fifty feet (150 ft),

al

ASSISTANT ADMINISTRATOR
PERMITS AND ENFORCEMENT

DATE: June 7, 1993

| | | | |
|---------------------------------------------------------------|--|-------------------------|--|
| PERMIT TO CONSTRUCT | | P E R M I T N U M B E R | |
| PERMITTEE, PROJECT, AND LOCATION | | | |
| AMOCO Oil Company Boise Marketing Terminal Boise, Idaho | | 001 - 00093 | |
| SOURCE | | | |
| Soil Vapor Extraction of Petroleum Hydrocarbons | | | |

- 3.1.2 The minimum horizontal distance from the benzene emission point (stack) to the nearest offsite structure serving as a workplace or residence shall be no less than three hundred feet (300 ft),
- 3.1.3 The air flow rate into the soil vapor extraction system shall be 250 cubic feet per minute plus or minus ten percent (250 cfm \pm 10%),
- 3.1.4 The minimum benzene emission point (stack) height shall be no less than twenty feet (20 ft), and
- 3.1.5 All the petroleum shall be routed through the stack.

4. MONITORING REQUIREMENTS

4.1 Monitor Benzene in the Stack

Benzene concentrations in the exit stack opening or at any point within the stack shall be monitored in a manner acceptable to DEQ.

4.2 Monitor Benzene in the Stack at the Following Frequencies

Benzene concentrations in the exit stack opening or at any point within the stack shall be monitored from a representative sample on the following frequency:

- 4.2.1 Once every three (3) months until the soil vapor extracting is terminated, and
- 4.2.2 Prior to and after removal of emission controls.

5. REPORTING REQUIREMENTS

5.1 Report Benzene Concentrations in the Stack to DEQ

DEQ Permits and Enforcement Division shall be notified in writing within thirty (30) days after monitoring is performed as required in 4.1 and 4.2. This notification shall include the sample date, test method, and the benzene concentration.



ASSISTANT ADMINISTRATOR
PERMITS AND ENFORCEMENT

DATE: June 7, 1993

| PERMIT TO CONSTRUCT | PERMIT NUMBER |
|---------------------------------------------------------------|---------------|
| PERMITTEE, PROJECT, AND LOCATION | |
| AMOCO Oil Company Boise Marketing Terminal Boise, Idaho | 001 - 00093 |
| SOURCE | |
| Soil Vapor Extraction of Petroleum Hydrocarbons | |

5.2 Report to DEQ When Soil Vapor Extraction is Terminated

DEQ Permits and Enforcement Division shall be notified in writing when the soil vapor extraction portion of the remediation has terminated.


ASSISTANT ADMINISTRATOR
PERMITS AND ENFORCEMENT

DATE: June 7, 1993

PERMIT TO CONSTRUCT GENERAL PROVISIONS

- A. All emissions authorized herein shall be consistent with the terms and conditions of this permit and the Rules and Regulations for the Control of Air Pollution in Idaho. The emission of any pollutant in excess of the limitations specified herein, or noncompliance with any other condition or limitation contained in this permit, shall constitute a violation of this permit and the Rules and Regulations for the Control of Air Pollution in Idaho, and the Environmental Protection and Health Act, Idaho Code 39-101, et.seq.
- B. The permittee shall at all times (except as provided in the Rules and Regulations for the Control of Air Pollution in Idaho) maintain in good working order and operate as efficiently as practicable, all treatment or control facilities or systems installed or used to achieve compliance with the terms and conditions of this permit and other applicable Idaho laws for the control of air pollution.
- C. The permittee shall allow the Director, and/or his authorized representative(s), upon the presentation of credentials:
- 1) To enter at reasonable times upon the premises where an emission source is located, or in which any records are required to be kept under the terms and conditions of this permit; and
 - 2) At reasonable times to have access to and copy any records required to be kept under the terms and conditions of this permit, to inspect any monitoring methods required in this permit, and require stack emission testing in conformance with the Department's Procedures Manual for Air Pollution Control when deemed appropriate by the Director.
- D. Nothing in this permit is intended to relieve or exempt the permittee from compliance with any applicable federal, state, or local law or regulation, except as specifically provided herein.
- E. The permittee shall notify the Idaho Air Quality Bureau, in writing, of the required information for the following events within five working days after occurrence;
-
- 1) Initiation of Construction - Date
 - 2) Completion/Cessation of Construction - Date
 - 3) Actual Production Start up - Date
 - 4) Initial Date of Achieving Maximum Production Rate - Production Rate and Date
- F. If emission testing is specified, the permittee must schedule such testing within sixty (60) days after achieving the maximum production rate, but not later than one hundred and eighty (180) days after initial start up. Such testing must strictly adhere to the procedures outlined in the Department's Procedures Manual for Air Pollution Control, and will not be conducted on weekends or state holidays. Testing procedures and specific time limitations may be modified by the Idaho Air Quality Bureau by prior negotiation if conditions warrant adjustment. The Idaho Air Quality Bureau shall be notified at least fifteen (15) working days prior to the scheduled compliance test. Any records or data generated as a result of such compliance test shall be made available to the Department upon request.
- The performance tests will be performed at the maximum production rate. If this maximum rate is not achieved during testing, the allowable production rate will be limited to the production rate attained during testing.
- G. The provisions of this permit are severable, and if any provision of this permit to any circumstance is held invalid, the application of such provision to the circumstances, and the remainder of this permit shall not be affected thereby.

APPENDIX B

40 CFR 63 - SUBPART R

BULK GASOLINE DISTRIBUTION MACT STANDARD

(last edited July 1998)

TABLE 1 TO SUBPART Q—GENERAL PROVISIONS APPLICABILITY TO SUBPART Q—Continued

| Reference | Applies to Subpart Q | Comment |
|---------------------------------------------------------------------------------------|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 63.2 | Yes. | |
| 63.3 | No. | |
| 63.4 | Yes. | |
| 63.5 | No. | |
| 63.6 (a), (b), (c), and (f) | Yes. | |
| 63.6 (d), (e), (g), (h), and (i) | No. | |
| 63.7 | No. | |
| 63.8 | No. | |
| 63.9 (a), (b)(1), (b)(3), (c), (h)(1), (h)(3), (h)(6), and (f) | Yes. | |
| 63.9 (b)(2), (b)(4), (b)(5), (b)(6), (d), (e), (f), (g), (h)(2), (h)(4), (h)(5) | No | Requirements for initial notifications and notifications of compliance status are specified in § 63.405(a) and § 63.405(b), respectively, of subpart Q; other provisions of subpart A are not relevant to IPCT's. |
| 63.10 (a), (b)(1), (b)(2)(xii), (b)(2)(xiv), (b)(3), (d), and (f) | Yes | Section 63.406 requires an onsite record retention of 5 years. |
| 63.10 (b)(2) (i) to (x), (c), and (e) | No. | |
| 63.11 | No. | |
| 63.12 to 63.15 | Yes. | |

Subpart R—National Emission Standards for Gasoline Distribution Facilities (Bulk Gasoline Terminals and Pipeline Breakout Stations)

SOURCE: 59 FR 64318, Dec. 14, 1994, unless otherwise noted.

§ 63.420 Applicability.

(a) The affected source to which the provisions of this subpart apply is each bulk gasoline terminal, except those bulk gasoline terminals:

(1) For which the owner or operator has documented and recorded to the Administrator's satisfaction that the result, E_T , of the following equation is less than 1, and complies with requirements in paragraphs (c), (d), (e), and (f) of this section:

$$E_T = CF[0.59(T_F)(1-CE) + 0.17(T_E) + 0.08(T_{ES}) + 0.038(T_I) + 8.5 \times 10^{-6}(C) + KQ] + 0.04(OE)$$

where:

E_T = emissions screening factor for bulk gasoline terminals;

$CF=0.161$ for bulk gasoline terminals and pipeline breakout stations that do not handle any reformulated or oxygenated gasoline containing 7.6 percent by volume or greater methyl tert-butyl ether (MTBE), OR

$CF=1.0$ for bulk gasoline terminals and pipeline breakout stations that handle reformulated or oxygenated

gasoline containing 7.6 percent by volume or greater MTBE;

CE =control efficiency limitation on potential to emit for the vapor processing system used to control emissions from fixed-roof gasoline storage vessels [value should be added in decimal form (percent divided by 100)];

T_F = total number of fixed-roof gasoline storage vessels without an internal floating roof;

T_E = total number of external floating roof gasoline storage vessels with only primary seals;

T_{ES} = total number of external floating roof gasoline storage vessels with primary and secondary seals;

T_I = total number of fixed-roof gasoline storage vessels with an internal floating roof;

C = number of valves, pumps, connectors, loading arm valves, and open-ended lines in gasoline service;

Q =gasoline throughput limitation on potential to emit or gasoline throughput limit in compliance with paragraphs (c), (d), and (f) of this section (liters/day);

$K = 4.52 \times 10^{-6}$ for bulk gasoline terminals with uncontrolled loading racks (no vapor collection and processing systems), OR

$K = (4.5 \times 10^{-9})(EF + L)$ for bulk gasoline terminals with controlled loading racks (loading racks that have vapor collection and processing

systems installed on the emission stream);

EF=emission rate limitation on potential to emit for the gasoline cargo tank loading rack vapor processor outlet emissions (mg of total organic compounds per liter of gasoline loaded);

OE=other HAP emissions screening factor for bulk gasoline terminals or pipeline breakout stations (tons per year). OE equals the total HAP from other emission sources not specified in parameters in the equations for E_T or E_P . If the value of $0.04(OE)$ is greater than 5 percent of either E_T or E_P , then paragraphs (a)(1) and (b)(1) of this section shall not be used to determine applicability;

$L = 13$ mg/l for gasoline cargo tanks meeting the requirement to satisfy the test criteria for a vapor-tight gasoline tank truck in §60.501 of this chapter, OR

$L = 304$ mg/l for gasoline cargo tanks not meeting the requirement to satisfy the test criteria for a vapor-tight gasoline tank truck in §60.501 of this chapter; or

(2) For which the owner or operator has documented and recorded to the Administrator's satisfaction that the facility is not a major source, or is not located within a contiguous area and under common control of a facility that is a major source, as defined in §63.2 of subpart A of this part.

(b) The affected source to which the provisions of this subpart apply is each pipeline breakout station, except those pipeline breakout stations:

(1) For which the owner or operator has documented and recorded to the Administrator's satisfaction that the result, E_P , of the following equation is less than 1, and complies with requirements in paragraphs (c), (d), (e), and (f) of this section:

$$E_P = CF [6.7(T_F)(1-CE) + 0.21(T_E) + 0.093(T_{ES}) + 0.1(T_I) + 5.31 \times 10^{-6}(C)] + 0.04(OE);$$

where:

EP=emissions screening factor for pipeline breakout stations,

and the definitions for CF, T_F , CE, T_E , T_{ES} , T_I , C, and OE are the same as provided in paragraph (a)(1) of this section; or

(2) For which the owner or operator has documented and recorded to the Administrator's satisfaction that the facility is not a major source, or is not located within a contiguous area and under common control of a facility that is a major source, as defined in §63.2 of subpart A of this part.

(c) A facility for which the results, E_T or E_P , of the calculation in paragraph (a)(1) or (b)(1) of this section has been documented and is less than 1.0 but greater than or equal to 0.50, is exempt from the requirements of this subpart, except that the owner or operator shall:

(1) Operate the facility such that none of the facility parameters used to calculate results under paragraph (a)(1) or (b)(1) of this section, and approved by the Administrator, is exceeded in any rolling 30-day period; and

(2) Maintain records and provide reports in accordance with the provisions of §63.428(i).

(d) A facility for which the results, E_T or E_P , of the calculation in paragraph (a)(1) or (b)(1) of this section has been documented and is less than 0.50, is exempt from the requirements of this subpart, except that the owner or operator shall:

(1) Operate the facility such that none of the facility parameters used to calculate results under paragraph (a)(1) or (b)(1) of this section is exceeded in any rolling 30-day period; and

(2) Maintain records and provide reports in accordance with the provisions of §63.428(j).

(e) The provisions of paragraphs (a)(1) and (b)(1) of this section shall not be used to determine applicability to bulk gasoline terminals or pipeline breakout stations that are either:

(1) Located within a contiguous area and under common control with another bulk gasoline terminal or pipeline breakout station, or

(2) Located within a contiguous area and under common control with other sources not specified in paragraphs (a)(1) or (b)(1) of this section, that emit or have the potential to emit a hazardous air pollutant.

(f) Upon request by the Administrator, the owner or operator of a bulk gasoline terminal or pipeline breakout station subject to the provisions of any

paragraphs in this section including, but not limited to, the parameters and assumptions used in the applicable equation in paragraph (a)(1) or (b)(1) of this section, shall demonstrate compliance with those paragraphs.

(g) Each owner or operator of a bulk gasoline terminal or pipeline breakout station subject to the provisions of this subpart that is also subject to applicable provisions of 40 CFR part 60, subpart Kb or XX of this chapter shall comply only with the provisions in each subpart that contain the most stringent control requirements for that facility.

(h) Each owner or operator of an affected source bulk gasoline terminal or pipeline breakout station is subject to the provisions of 40 CFR part 63, subpart A—General Provisions, as indicated in Table 1.

(i) A bulk gasoline terminal or pipeline breakout station with a Standard Industrial Classification code 2911 located within a contiguous area and under common control with a refinery complying with subpart CC, §§ 63.646, 63.648, 63.649, and 63.650 is not subject to subpart R standards, except as specified in subpart CC, § 63.650.

(j) *Rules Stayed for Reconsideration.* Notwithstanding any other provision of this subpart, the December 14, 1995 compliance date for existing facilities in § 63.424(e) and § 63.428(a), (i)(1), and (j)(1) of this subpart is stayed from December 8, 1995, to March 7, 1996.

[59 FR 64318, Dec. 14, 1994, as amended at 60 FR 43260, Aug. 18, 1995; 60 FR 62992, Dec. 8, 1995; 62 FR 9092, Feb. 28, 1997]

§ 63.421 Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Act; in subparts A, K, Ka, Kb, and XX of part 60 of this chapter; or in subpart A of this part. All terms defined in both subpart A of part 60 of this chapter and subpart A of this part shall have the meaning given in subpart A of this part. For purposes of this subpart, definitions in this section supersede definitions in other parts or subparts.

Bulk gasoline terminal means any gasoline facility which receives gasoline by pipeline, ship or barge, and has a gasoline throughput greater than 75,700

liters per day. Gasoline throughput shall be the maximum calculated design throughput as may be limited by compliance with an enforceable condition under Federal, State or local law and discoverable by the Administrator and any other person.

Controlled loading rack, for the purposes of § 63.420, means a loading rack equipped with vapor collection and processing systems that reduce displaced vapor emissions to no more than 80 milligrams of total organic compounds per liter of gasoline loaded, as measured using the test methods and procedures in § 60.503 (a) through (c) of this chapter.

Equipment means each valve, pump, pressure relief device, sampling connection system, open-ended valve or line, and flange or other connector in the gasoline liquid transfer and vapor collection systems. This definition also includes the entire vapor processing system except the exhaust port(s) or stack(s).

Gasoline cargo tank means a delivery tank truck or railcar which is loading gasoline or which has loaded gasoline on the immediately previous load.

In gasoline service means that a piece of equipment is used in a system that transfers gasoline or gasoline vapors.

Limitation(s) on potential to emit means limitation(s) limiting a source's potential to emit as defined in § 63.2 of subpart A of this part.

Operating parameter value means a value for an operating or emission parameter of the vapor processing system (e.g., temperature) which, if maintained continuously by itself or in combination with one or more other operating parameter values, determines that an owner or operator has complied with the applicable emission standard. The operating parameter value is determined using the procedures outlined in § 63.425(b).

Oxygenated gasoline means the same as defined in 40 CFR 80.2(rr).

Pipeline breakout station means a facility along a pipeline containing storage vessels used to relieve surges or receive and store gasoline from the pipeline for reinjection and continued transportation by pipeline or to other facilities.

Reformulated gasoline means the same as defined in 40 CFR 80.2(ee).

Uncontrolled loading rack means a loading rack used to load gasoline cargo tanks that is not a controlled loading rack.

Vapor-tight gasoline cargo tank means a gasoline cargo tank which has demonstrated within the 12 preceding months that it meets the annual certification test requirements in §63.425(e), and which is subject at all times to the test requirements in §63.425 (f), (g), and (h).

Volatile organic liquid (VOL) means, for the purposes of this subpart, gasoline.

[59 FR 64318, Dec. 14, 1994, as amended at 62 FR 9093, Feb. 28, 1997]

§ 63.422 Standards: Loading racks.

(a) Each owner or operator of loading racks at a bulk gasoline terminal subject to the provisions of this subpart shall comply with the requirements in §60.502 of this chapter except for paragraphs (b), (c), and (j) of that section. For purposes of this section, the term "affected facility" used in §60.502 of this chapter means the loading racks that load gasoline cargo tanks at the bulk gasoline terminals subject to the provisions of this subpart.

(b) Emissions to the atmosphere from the vapor collection and processing systems due to the loading of gasoline cargo tanks shall not exceed 10 milligrams of total organic compounds per liter of gasoline loaded.

(c) Each owner or operator of a bulk gasoline terminal subject to the provisions of this subpart shall comply with §60.502(e) of this chapter as follows:

(1) For the purposes of this section, the term "tank truck" as used in §60.502(e) of this chapter means "cargo tank."

(2) Section 60.502(e)(5) of this chapter is changed to read: The terminal owner or operator shall take steps assuring that the nonvapor-tight gasoline cargo tank will not be reloaded at the facility until vapor tightness documentation for that gasoline cargo tank is obtained which documents that:

(i) The gasoline cargo tank meets the applicable test requirements in §63.425(e);

(ii) For each gasoline cargo tank failing the test in §63.425 (f) or (g) at the facility, the cargo tank either:

(A) Before repair work is performed on the cargo tank, meets the test requirements in §63.425 (g) or (h), or

(B) After repair work is performed on the cargo tank before or during the tests in §63.425 (g) or (h), subsequently passes the annual certification test described in §63.425(e).

(d) Each owner or operator shall meet the requirements in all paragraphs of this section as expeditiously as practicable, but no later than December 15, 1997, at existing facilities and upon startup for new facilities.

[59 FR 64318, Dec. 14, 1994; 60 FR 32913, June 26, 1995]

§ 63.423 Standards: Storage vessels.

(a) Each owner or operator of a bulk gasoline terminal or pipeline breakout station subject to the provisions of this subpart shall equip each gasoline storage vessel with a design capacity greater than or equal to 75 m³ according to the requirements in §60.112b(a) (1) through (4) of this chapter, except for the requirements in §§60.112b(a)(1) (iv) through (ix) and 60.112b(a)(2)(ii) of this chapter.

(b) Each owner or operator shall equip each gasoline external floating roof storage vessel with a design capacity greater than or equal to 75 m³ according to the requirements in §60.112b(a)(2)(ii) of this chapter if such storage vessel does not currently meet the requirements in paragraph (a) of this section.

(c) Each gasoline storage vessel at existing bulk gasoline terminals and pipeline breakout stations shall be in compliance with the requirements in paragraphs (a) and (b) of this section as expeditiously as practicable, but no later than December 15, 1997. At new bulk gasoline terminals and pipeline breakout stations, compliance shall be achieved upon startup.

§ 63.424 Standards: Equipment leaks.

(a) Each owner or operator of a bulk gasoline terminal or pipeline breakout station subject to the provisions of this subpart shall perform a monthly leak inspection of all equipment in gasoline service. For this inspection, detection

methods incorporating sight, sound, and smell are acceptable. Each piece of equipment shall be inspected during the loading of a gasoline cargo tank.

(b) A log book shall be used and shall be signed by the owner or operator at the completion of each inspection. A section of the log shall contain a list, summary description, or diagram(s) showing the location of all equipment in gasoline service at the facility.

(c) Each detection of a liquid or vapor leak shall be recorded in the log book. When a leak is detected, an initial attempt at repair shall be made as soon as practicable, but no later than 5 calendar days after the leak is detected. Repair or replacement of leaking equipment shall be completed within 15 calendar days after detection of each leak, except as provided in paragraph (d) of this section.

(d) Delay of repair of leaking equipment will be allowed upon a demonstration to the Administrator that repair within 15 days is not feasible. The owner or operator shall provide the reason(s) a delay is needed and the date by which each repair is expected to be completed.

(e) Initial compliance with the requirements in paragraphs (a) through (d) of this section shall be achieved by existing sources as expeditiously as practicable, but no later than December 15, 1997. For new sources, initial compliance shall be achieved upon startup.

(f) As an alternative to compliance with the provisions in paragraphs (a) through (d) of this section, owners or operators may implement an instrument leak monitoring program that has been demonstrated to the Administrator as at least equivalent.

(g) Owners and operators shall not allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time. Measures to be taken include, but are not limited to, the following:

- (1) Minimize gasoline spills;
- (2) Clean up spills as expeditiously as practicable;
- (3) Cover all open gasoline containers with a gasketed seal when not in use;
- (4) Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation

and recycling devices, such as oil/water separators.

[59 FR 64318, Dec. 14, 1994, as amended at 61 FR 7723, Feb. 29, 1996]

§ 63.425 Test methods and procedures.

(a) Each owner or operator subject to the emission standard in § 63.422(b) or § 60.112b(a)(3)(ii) of this chapter shall conduct a performance test on the vapor processing system according to the test methods and procedures in § 60.503, except a reading of 500 ppm shall be used to determine the level of leaks to be repaired under § 60.503(b). If a flare is used to control emissions, and emissions from this device cannot be measured using these methods and procedures, the provisions of § 63.11(b) shall apply.

(b) For each performance test conducted under paragraph (a) of this section, the owner or operator shall determine a monitored operating parameter value for the vapor processing system using the following procedure:

(1) During the performance test, continuously record the operating parameter under § 63.427(a);

(2) Determine an operating parameter value based on the parameter data monitored during the performance test, supplemented by engineering assessments and the manufacturer's recommendations; and

(3) Provide for the Administrator's approval the rationale for the selected operating parameter value, and monitoring frequency and averaging time, including data and calculations used to develop the value and a description of why the value, monitoring frequency, and averaging time demonstrate continuous compliance with the emission standard in § 63.422(b) or § 60.112b(a)(3)(ii) of this chapter.

(c) For performance tests performed after the initial test, the owner or operator shall document the reasons for any change in the operating parameter value since the previous performance test.

(d) The owner or operator of each gasoline storage vessel subject to the provisions of § 63.423 shall comply with § 60.113b of this chapter. If a closed vent system and control device are used, as specified in § 60.112b(a)(3) of this chapter, to comply with the requirements

in §63.423, the owner or operator shall also comply with the requirements in paragraph (b) of this section.

(e) *Annual certification test.* The annual certification test for gasoline cargo tanks shall consist of the following test methods and procedures:

(1) Method 27, appendix A, 40 CFR part 60. Conduct the test using a time period (t) for the pressure and vacuum

tests of 5 minutes. The initial pressure (P_1) for the pressure test shall be 460 mm H₂O (18 in. H₂O), gauge. The initial vacuum (V_1) for the vacuum test shall be 150 mm H₂O (6 in. H₂O), gauge. The maximum allowable pressure and vacuum changes (Δp , Δv) are as shown in the second column of Table 2 of this paragraph.

TABLE 2—ALLOWABLE CARGO TANK TEST PRESSURE OR VACUUM CHANGE

| Cargo tank or compartment capacity, liters (gal) | Annual certification-allowable pressure or vacuum change (Δp , Δv) in 5 minutes, mm H ₂ O (in. H ₂ O) | Allowable pressure change (Δp) in 5 minutes at any time, mm H ₂ O (in. H ₂ O) |
|--------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|
| 9,464 or more (2,500 or more) | 25 (1.0) | 84 (2.5) |
| 9,463 to 5,878 (2,499 to 1,500) | 38 (1.5) | 76 (3.0) |
| 5,879 to 3,785 (1,499 to 1,000) | 51 (2.0) | 89 (3.5) |
| 3,782 or less (999 or less) | 64 (2.5) | 102 (4.0) |

(2) Pressure test of the cargo tank's internal vapor valve as follows:

(i) After completing the tests under paragraph (e)(1) of this section, use the procedures in Method 27 to repressurize the tank to 460 mm H₂O (18 in. H₂O), gauge. Close the tank's internal vapor valve(s), thereby isolating the vapor return line and manifold from the tank.

(ii) Relieve the pressure in the vapor return line to atmospheric pressure, then reseal the line. After 5 minutes, record the gauge pressure in the vapor return line and manifold. The maximum allowable 5-minute pressure increase is 130 mm H₂O (5 in. H₂O).

(f) *Leak detection test.* The leak detection test shall be performed using Method 21, appendix A, 40 CFR part 60, except omit section 4.3.2 of Method 21. A vapor-tight gasoline cargo tank shall have no leaks at any time when tested according to the procedures in this paragraph.

(1) The leak definition shall be 21,000 ppm as propane. Use propane to calibrate the instrument, setting the span at the leak definition. The response time to 90 percent of the final stable reading shall be less than 8 seconds for the detector with the sampling line and probe attached.

(2) In addition to the procedures in Method 21, include the following procedures:

(i) Perform the test on each compartment during loading of that compartment or while the compartment is still under pressure.

(ii) To eliminate a positive instrument drift, the dwell time for each leak detection shall not exceed two times the instrument response time. Purge the instrument with ambient air between each leak detection. The duration of the purge shall be in excess of two instrument response times.

(iii) Attempt to block the wind from the area being monitored. Record the highest detector reading and location for each leak.

(g) *Nitrogen pressure decay field test.* For those cargo tanks with manifolded product lines, this test procedure shall be conducted on each compartment.

(1) Record the cargo tank capacity. Upon completion of the loading operation, record the total volume loaded. Seal the cargo tank vapor collection system at the vapor coupler. The sealing apparatus shall have a pressure tap. Open the internal vapor valve(s) of the cargo tank and record the initial headspace pressure. Reduce or increase, as necessary, the initial headspace pressure to 460 mm H₂O (18.0 in. H₂O), gauge by releasing pressure or by adding commercial grade nitrogen gas from a high pressure cylinder capable of maintaining a pressure of 2,000 psig.

(1) The cylinder shall be equipped with a compatible two-stage regulator with a relief valve and a flow control metering valve. The flow rate of the nitrogen shall be no less than 2 cfm. The maximum allowable time to pressurize cargo tanks with headspace volumes of 1,000 gallons or less to the appropriate pressure is 4 minutes. For cargo tanks with a headspace of greater than 1,000 gallons, use as a maximum allowable time to pressurize 4 minutes or the result from the equation below, whichever is greater.

$$T = V_h \times 0.004$$

where:

T = maximum allowable time to pressurize the cargo tank, min;

V_h = cargo tank headspace volume during testing, gal.

(2) It is recommended that after the cargo tank headspace pressure reaches approximately 460 mm H₂O (18 in. H₂O), gauge, a fine adjust valve be used to adjust the headspace pressure to 460 mm H₂O (18.0 in. H₂O), gauge for the next 30 ± 5 seconds.

(3) Reseal the cargo tank vapor collection system and record the headspace pressure after 1 minute. The measured headspace pressure after 1 minute shall be greater than the minimum allowable final headspace pressure (P_F) as calculated from the following equation:

$$P_F = 18 \left(\frac{(18 - N)}{18} \right) \left(\frac{V_s}{5(V_h)} \right)$$

where:

(P_F) = minimum allowable final headspace pressure, in. H₂O, gauge;

V_s = total cargo tank shell capacity, gal;

V_h = cargo tank headspace volume after loading, gal;

18.0 = initial pressure at start of test, in. H₂O, gauge;

N = 5-minute continuous performance standard at any time from the third column of Table 2 of § 63.425(e)(1), inches H₂O.

(4) Conduct the internal vapor valve portion of this test by repressurizing the cargo tank headspace with nitrogen to 460 mm H₂O (18 in. H₂O), gauge.

Close the internal vapor valve(s), wait for 30 ± 5 seconds, then relieve the pressure downstream of the vapor valve in the vapor collection system to atmospheric pressure. Wait 15 seconds, then reseal the vapor collection system. Measure and record the pressure every minute for 5 minutes. Within 5 seconds of the pressure measurement at the end of 5 minutes, open the vapor valve and record the headspace pressure as the "final pressure."

(5) If the decrease in pressure in the vapor collection system is less than at least one of the interval pressure change values in Table 3 of this paragraph, or if the final pressure is equal to or greater than 20 percent of the 1-minute final headspace pressure determined in the test in paragraph (g)(3) of this section, then the cargo tank is considered to be a vapor-tight gasoline cargo tank.

TABLE 3—PRESSURE CHANGE FOR INTERNAL VAPOR VALVE TEST

| Time interval | Interval pressure change, mm H ₂ O (in. H ₂ O) |
|-----------------------|----------------------------------------------------------------------|
| After 1 minute | 28 (1.1) |
| After 2 minutes | 56 (2.2) |
| After 3 minutes | 84 (3.3) |
| After 4 minutes | 112 (4.4) |
| After 5 minutes | 140 (5.5) |

(h) *Continuous performance pressure decay test.* The continuous performance pressure decay test shall be performed using Method 27, appendix A, 40 CFR Part 60. Conduct only the positive pressure test using a time period (t) of 5 minutes. The initial pressure (P_i) shall be 460 mm H₂O (18 in. H₂O), gauge. The maximum allowable 5-minute pressure change (Δ p) which shall be met at any time is shown in the third column of Table 2 of § 63.425(e)(1).

[59 FR 64318, Dec. 14, 1994; 60 FR 7627, Feb. 8, 1995; 60 FR 32913, June 26, 1995]

§ 63.426 Alternative means of emission limitation.

For determining the acceptability of alternative means of emission limitation for storage vessels under § 63.423, the provisions of § 60.114b of this chapter apply.

§ 63.427 Continuous monitoring.

(a) Each owner or operator of a bulk gasoline terminal subject to the provisions of this subpart shall install, calibrate, certify, operate, and maintain, according to the manufacturer's specifications, a continuous monitoring system (CMS) as specified in paragraph (a)(1), (a)(2), (a)(3), or (a)(4) of this section, except as allowed in paragraph (a)(5) of this section.

(1) Where a carbon adsorption system is used, a continuous emission monitoring system (CEMS) capable of measuring organic compound concentration shall be installed in the exhaust air stream.

(2) Where a refrigeration condenser system is used, a continuous parameter monitoring system (CPMS) capable of measuring temperature shall be installed immediately downstream from the outlet to the condenser section. Alternatively, a CEMS capable of measuring organic compound concentration may be installed in the exhaust air stream.

(3) Where a thermal oxidation system is used, a CPMS capable of measuring temperature shall be installed in the firebox or in the ductwork immediately downstream from the firebox in a position before any substantial heat exchange occurs.

(4) Where a flare is used, a heat-sensing device, such as an ultraviolet beam sensor or a thermocouple, shall be installed in proximity to the pilot light to indicate the presence of a flame.

(5) Monitoring an alternative operating parameter or a parameter of a vapor processing system other than those listed in this paragraph will be allowed upon demonstrating to the Administrator's satisfaction that the alternative parameter demonstrates continuous compliance with the emission standard in § 63.422(b) or § 60.112b(a)(3)(ii) of this chapter.

(b) Each owner or operator of a bulk gasoline terminal subject to the provisions of this subpart shall operate the vapor processing system in a manner not to exceed the operating parameter value for the parameter described in paragraphs (a)(1) and (a)(2) of this section, or to go below the operating parameter value for the parameter described in paragraph (a)(3) of this section,

and established using the procedures in § 63.425(b). In cases where an alternative parameter pursuant to paragraph (a)(5) of this section is approved, each owner or operator shall operate the vapor processing system in a manner not to exceed or not to go below, as appropriate, the alternative operating parameter value. Operation of the vapor processing system in a manner exceeding or going below the operating parameter value, as specified above, shall constitute a violation of the emission standard in § 63.422(b).

(c) Each owner or operator of gasoline storage vessels subject to the provisions of § 63.423 shall comply with the monitoring requirements in § 60.116b of this chapter, except records shall be kept for at least 5 years. If a closed vent system and control device are used, as specified in § 60.112b(a)(3) of this chapter, to comply with the requirements in § 63.423, the owner or operator shall also comply with the requirements in paragraph (a) of this section.

§ 63.428 Reporting and recordkeeping.

(a) The initial notifications required for existing affected sources under § 63.9(b)(2) shall be submitted by 1 year after an affected source becomes subject to the provisions of this subpart or by December 16, 1996, whichever is later. Affected sources that are major sources on December 16, 1996 and plan to be area sources by December 15, 1997 shall include in this notification a brief, non-binding description of and schedule for the action(s) that are planned to achieve area source status.

(b) Each owner or operator of a bulk gasoline terminal subject to the provisions of this subpart shall keep records of the test results for each gasoline cargo tank loading at the facility as follows:

(1) Annual certification testing performed under § 63.425(e); and

(2) Continuous performance testing performed at any time at that facility under § 63.425 (f), (g), and (h).

(3) The documentation file shall be kept up-to-date for each gasoline cargo tank loading at the facility. The documentation for each test shall include, as a minimum, the following information:

(i) Name of test:

Annual Certification Test—Method 27 (§ 63.425(e)(1)),

Annual Certification Test—Internal Vapor Valve (§ 63.425(e)(2)),

Leak Detection Test (§ 63.425(f)),

Nitrogen Pressure Decay Field Test (§ 63.425(g)), or

Continuous Performance Pressure Decay Test (§ 63.425(h)).

(ii) Cargo tank owner's name and address.

(iii) Cargo tank identification number.

(iv) Test location and date.

(v) Tester name and signature.

(vi) Witnessing inspector, if any: Name, signature, and affiliation.

(vii) Vapor tightness repair: Nature of repair work and when performed in relation to vapor tightness testing.

(viii) Test results: Pressure or vacuum change, mm of water; time period of test; number of leaks found with instrument and leak definition.

(c) Each owner or operator of a bulk gasoline terminal subject to the provisions of this subpart shall:

(1) Keep an up-to-date, readily accessible record of the continuous monitoring data required under § 63.427(a). This record shall indicate the time intervals during which loadings of gasoline cargo tanks have occurred or, alternatively, shall record the operating parameter data only during such loadings. The date and time of day shall also be indicated at reasonable intervals on this record.

(2) Record and report simultaneously with the notification of compliance status required under § 63.9(h):

(i) All data and calculations, engineering assessments, and manufacturer's recommendations used in determining the operating parameter value under § 63.425(b); and

(ii) The following information when using a flare under provisions of § 63.11(b) to comply with § 63.422(b):

(A) Flare design (i.e., steam-assisted, air-assisted, or non-assisted); and

(B) All visible emissions readings, heat content determinations, flow rate measurements, and exit velocity determinations made during the compliance determination required under § 63.425(a).

(3) If an owner or operator requests approval to use a vapor processing system or monitor an operating parameter other than those specified in § 63.427(a), the owner or operator shall submit a description of planned reporting and recordkeeping procedures. The Administrator will specify appropriate reporting and recordkeeping requirements as part of the review of the permit application.

(d) Each owner or operator of storage vessels subject to the provisions of this subpart shall keep records and furnish reports as specified in § 60.115b of this chapter, except records shall be kept for at least 5 years.

(e) Each owner or operator complying with the provisions of § 63.424 (a) through (d) shall record the following information in the log book for each leak that is detected:

(1) The equipment type and identification number;

(2) The nature of the leak (i.e., vapor or liquid) and the method of detection (i.e., sight, sound, or smell);

(3) The date the leak was detected and the date of each attempt to repair the leak;

(4) Repair methods applied in each attempt to repair the leak;

(5) "Repair delayed" and the reason for the delay if the leak is not repaired within 15 calendar days after discovery of the leak;

(6) The expected date of successful repair of the leak if the leak is not repaired within 15 days; and

(7) The date of successful repair of the leak.

(f) Each owner or operator subject to the provisions of § 63.424 shall report to the Administrator a description of the types, identification numbers, and locations of all equipment in gasoline service. For facilities electing to implement an instrument program under § 63.424(f), the report shall contain a full description of the program.

(i) In the case of an existing source or a new source that has an initial startup date before the effective date, the report shall be submitted with the notification of compliance status required under § 63.9(h), unless an extension of compliance is granted under § 63.6(i). If an extension of compliance

is granted, the report shall be submitted on a date scheduled by the Administrator.

(2) In the case of new sources that did not have an initial startup date before the effective date, the report shall be submitted with the application for approval of construction, as described in § 63.5(d).

(g) Each owner or operator of a bulk gasoline terminal or pipeline breakout station subject to the provisions of this subpart shall include in a semiannual report to the Administrator the following information, as applicable:

(1) Each loading of a gasoline cargo tank for which vapor tightness documentation had not been previously obtained by the facility;

(2) Periodic reports required under paragraph (d) of this section; and

(3) The number of equipment leaks not repaired within 5 days after detection.

(h) Each owner or operator of a bulk gasoline terminal or pipeline breakout station subject to the provisions of this subpart shall submit an excess emissions report to the Administrator in accordance with § 63.10(e)(3), whether or not a CMS is installed at the facility. The following occurrences are excess emissions events under this subpart, and the following information shall be included in the excess emissions report, as applicable:

(1) Each exceedance or failure to maintain, as appropriate, the monitored operating parameter value determined under §63.425(b). The report shall include the monitoring data for the days on which exceedances or failures to maintain have occurred, and a description and timing of the steps taken to repair or perform maintenance on the vapor collection and processing systems or the CMS.

(2) Each instance of a nonvapor-tight gasoline cargo tank loading at the facility in which the owner or operator failed to take steps to assure that such cargo tank would not be reloaded at the facility before vapor tightness documentation for that cargo tank was obtained.

(3) Each reloading of a nonvapor-tight gasoline cargo tank at the facility before vapor tightness documentation for that cargo tank is obtained by

the facility in accordance with § 63.422(c)(2).

(4) For each occurrence of an equipment leak for which no repair attempt was made within 5 days or for which repair was not completed within 15 days after detection:

(i) The date on which the leak was detected;

(ii) The date of each attempt to repair the leak;

(iii) The reasons for the delay of repair; and

(iv) The date of successful repair.

(1) Each owner or operator of a facility meeting the criteria in §63.420(c) shall perform the requirements of this paragraph (1), all of which will be available for public inspection:

(1) Document and report to the Administrator not later than December 16, 1996 for existing facilities, within 30 days for existing facilities subject to § 63.420(c) after December 16, 1996, or at startup for new facilities the methods, procedures, and assumptions supporting the calculations for determining criteria in § 63.420(c);

(2) Maintain records to document that the facility parameters established under §63.420(c) have not been exceeded; and

(3) Report annually to the Administrator that the facility parameters established under § 63.420(c) have not been exceeded.

(4) At any time following the notification required under paragraph (1)(1) of this section and approval by the Administrator of the facility parameters, and prior to any of the parameters being exceeded, the owner or operator may submit a report to request modification of any facility parameter to the Administrator for approval. Each such request shall document any expected HAP emission change resulting from the change in parameter.

(j) Each owner or operator of a facility meeting the criteria in §63.420(d) shall perform the requirements of this paragraph (j), all of which will be available for public inspection:

(1) Document and report to the Administrator not later than December 16, 1996 for existing facilities, within 30 days for existing facilities subject to §63.420(d) after December 16, 1996, or at startup for new facilities the use of the

emission screening equations in § 63.420(a)(1) or (b)(1) and the calculated value of E_T or E_P ;

(2) Maintain a record of the calculations in § 63.420 (a)(1) or (b)(1), including methods, procedures, and assumptions supporting the calculations for determining criteria in § 63.420(d); and

(3) At any time following the notification required under paragraph (j)(1) of this section, and prior to any of the parameters being exceeded, the owner or operator may notify the Administrator of modifications to the facility parameters. Each such notification shall document any expected HAP

emission change resulting from the change in parameter.

[59 FR 64318, Dec. 14, 1994, as amended at 61 FR 7723, Feb. 29, 1996; 62 FR 9093, Feb. 28, 1997]

§ 63.429 Delegation of authority.

(a) In delegating implementation and enforcement authority to a State under section 112(l) of the Act, the authority contained in paragraph (b) of this section shall be retained by the Administrator and not transferred to a State.

(b) The authority conferred in § 63.426 and § 63.427(a)(5) will not be delegated to any State.

TABLE 1 TO SUBPART R—GENERAL PROVISIONS APPLICABILITY TO SUBPART R

| Reference | Applies to subpart R | Comment |
|---------------------------|----------------------|-----------------------------------------------------------------------------------------|
| 63.1(a)(1) | Yes | |
| 63.1(a)(2) | Yes | |
| 63.1(a)(3) | Yes | |
| 63.1(a)(4) | Yes | |
| 63.1(a)(5) | No | Section reserved |
| 63.1(a)(6)(8) | Yes | |
| 63.1(a)(9) | No | Section reserved |
| 63.1(a)(10) | Yes | |
| 63.1(a)(11) | Yes | |
| 63.1(a)(12)–(a)(14) | Yes | |
| 63.1(b)(1) | No | Subpart R specifies applicability in § 63.420 |
| 63.1(b)(2) | Yes | |
| 63.1(b)(3) | No | Subpart R specifies reporting and recordkeeping for some large area sources in § 63.428 |
| 63.1(c)(1) | Yes | |
| 63.1(c)(2) | Yes | Some small sources are not subject to subpart R |
| 63.1(c)(3) | No | Section reserved |
| 63.1(c)(4) | Yes | |
| 63.1(c)(5) | Yes | |
| 63.1(d) | No | Section reserved |
| 63.1(e) | Yes | |
| 63.2 | Yes | Additional definitions in § 63.421 |
| 63.3(a)–(c) | Yes | |
| 63.4(a)(1)–(a)(3) | Yes | |
| 63.4(a)(4) | No | Section reserved |
| 63.4(a)(5) | Yes | |
| 63.4(b) | Yes | |
| 63.4(c) | Yes | |
| 63.5(a)(1) | Yes | |
| 63.5(a)(2) | Yes | |
| 63.5(b)(1) | Yes | |
| 63.5(b)(2) | No | Section reserved |
| 63.5(b)(3) | Yes | |
| 63.5(b)(4) | Yes | |
| 63.5(b)(5) | Yes | |
| 63.5(b)(6) | Yes | |
| 63.5(c) | No | Section reserved |
| 63.5(d)(1) | Yes | |
| 63.5(d)(2) | Yes | |
| 63.5(d)(3) | Yes | |
| 63.5(d)(4) | Yes | |
| 63.5(e) | Yes | |
| 63.5(f)(1) | Yes | |

Tesoro (Boise)
T1-010917
October 22, 2001

ATTACHMENT C

Copies of:

- 1) Amoco Oil Company's Initial Area Source Status Notification to EPA Region X for the Bulk Gasoline Distribution MACT**
- 2) Amoco Oil Company's Annual MACT Report under 40 CFR 63.428(i)(3), dated June 2, 2000**

JAN - 4 1999 ✓

BUREAU OF ENVIRONMENTAL
HEALTH AND SAFETY



Amoco Petroleum Products
Salt Lake City Business Unit
474 West 900 North
Salt Lake City, Utah 84103-1494
Telephone: (801) 521-4810
Facsimile: (801) 521-4952

December 16, 1998

CERTIFIED MAIL
RETURN RECEIPT REQUESTED
NUMBER P 772 598 389

US Environmental Protection Agency, Region X
Director, Air and Toxics Division
1200 Sixth Avenue
Seattle, WA 98101

**Supplemental Notification of Applicability of Gasoline Distribution MACT Rule
for Amoco Oil Company - Boise, Idaho Products Terminal**

In December 1996, you were informed of the plan to use the then soon-to-be revised applicability screening equation (40 CFR Part 63.420) to assume a federally-enforceable product throughput cap which would limit this terminal's potential to emit for hazardous air pollutants to below the major source threshold.

At that time, the screening equation was in the process of being modified and a final version was not yet published. In a memo from Bruce Jordon to the ten regions, EPA approved use of the revised screening equation in the initial MACT applicability notifications required by December 16, 1996. It has come to our attention that the equation that was used in the original notification for this terminal contained a minor error, a result of supposing its final form prior to the publication of the revision published in February 1997. Correction of this error results in minor corrections in the worst-case parameters used in the screening equation evaluation.

We have also become aware that four tanks were unintentionally misrepresented as external floating roof tanks in the original submittal. These tanks are all equipped with self supporting geodesic domes and have lower emissions than true external floating roof tanks. They are to be considered as internal floating roof tanks in the screening equation evaluation.

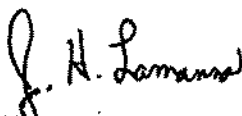
The net result of correcting both the equation error and the tank error is a slight increase in allowed throughput.

The Boise Terminal will use this corrected applicability screening equation in 40 CFR Part 63 Subpart R §63.420(a)(1) to establish federally enforceable operating parameters that will limit its potential to emit to below the major source threshold. Attached is a copy of the screening equation evaluation for the terminal using the

correct screening equation as revised in the February 28, 1997 Federal Register and the correct input for the number and type of tanks in gasoline service.

Should you have any questions about this notification, please do not hesitate to contact Craig Morris at (801) 521-4883.

Very truly yours,



J. H. Lamanna

Business Unit Leader

RBS/

attachment

cc: Department Of Health And Welfare
Bureau of Environmental Health and Safety
4th Floor, Towers Bldg., 450 W. State Street,
P.O. Box 83720
Boise, ID 83720-0036

| | | | | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|---------------------------------------------------------------|-------------------------------------------------------------------------|-------------------------------|--|
| Boise Terminal | | | | | |
| Amoco Oil Company | | | | | |
| Screening Equation Analysis | | | | | |
| | | | | | |
| | | | | | |
| The terminal handles conventional gasoline: CF = 0.161. | | | | | |
| Sources of OE emissions include distillate and interface management at tanks and racks, remediation, and other minor miscellaneous sources. | | | | | |
| | | | | | |
| Number of Gasoline Storage Tanks and components | | | | | |
| | | | | | |
| Fixed Roof (T _F) | Internal Floating Roof (T _I) | External Floating Roof (Primary seals only) (T _E) | External Floating Roof (Primary and secondary seals) (T _{ES}) | Total Fugitive Components (C) | |
| 0 | 5 | 0 | 0 | 550 | |
| | | | | | |
| | | | | | |
| | | | | | |
| Screening Equation | | | | | |
| $E_T = CF \cdot (0.59 \cdot T_F \cdot (1 - CE) + 0.038 \cdot T_I + 0.17 \cdot T_E + 0.08 \cdot T_{ES} + 8.5 \cdot 10^{-6} \cdot C + 4.52 \cdot 10^{-6} \cdot Q) + 0.04 \cdot OE$ | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| At a throughput of | 121.72 | MM gallons per year | | | |
| or | 333,485 | gallons per day | | | |
| or | 1,262,240 | liters per day | | | |
| | | | | | |
| | Et = | 0.9999 | | | |
| | OE = | 1.25 | T/Y | | |



BP Amoco

U.S. Terminals & Distribution
Mid-Continent --- HSE / Regulatory

Wood River Terminal
335 South Old St. Louis Road
Wood River, IL 62095

phone - (618)254-7650

June 2, 2000

US Environmental Protection Agency, Region X
Director, Air and Toxics Division
1200 Sixth Avenue
Seattle, WA 98101

Certified Mail # Z 449 287 565

**Annual Report, Gasoline Distribution MACT Rule 40 CFR 63.428(i)(3) for
Amoco Oil Company - Boise, Idaho Products Terminal**

The Boise, Idaho Products Terminal has demonstrated its exempt status from 40 CFR Subpart 63 through the submittal of screening equation parameters in accordance with 40 CFR 63.420(a)(1). Those screening equation parameters were initially submitted in a letter to USEPA Region X, dated December 10, 1996, and subsequently corrected in a letter dated December 16, 1998.

This letter notifies the EPA Administrator that the facility parameters established under 40 CFR 63.420(c) have not been exceeded during the calendar year of 1999.

Should you have any questions about this notification please do not hesitate to contact me.

Jeff Piatt

Environmental Manager - Mid-Continent Area

cc: Jeff Carter, Terminal Manager, Boise

Department of Health and Welfare
Bureau of Environmental Health and Safety
4th Floor, Towers Bldg., 450 W State Street
P.O. Box 83720
Boise, ID 83720-0036

RECEIVED

JUN 15 2000

DIVISION OF
ENVIRONMENTAL QUALITY
BOISE REGIONAL OFFICE

bcc: J. D. Tangaro
J. E. Naccache
ETS Boise File -Warrenville/Cantera
EH&S T01.6, T03.2